

7174-15

LIBRARY COMPANY

OF  
PHILADELPHIA.

RIDGWAY BRANCH.

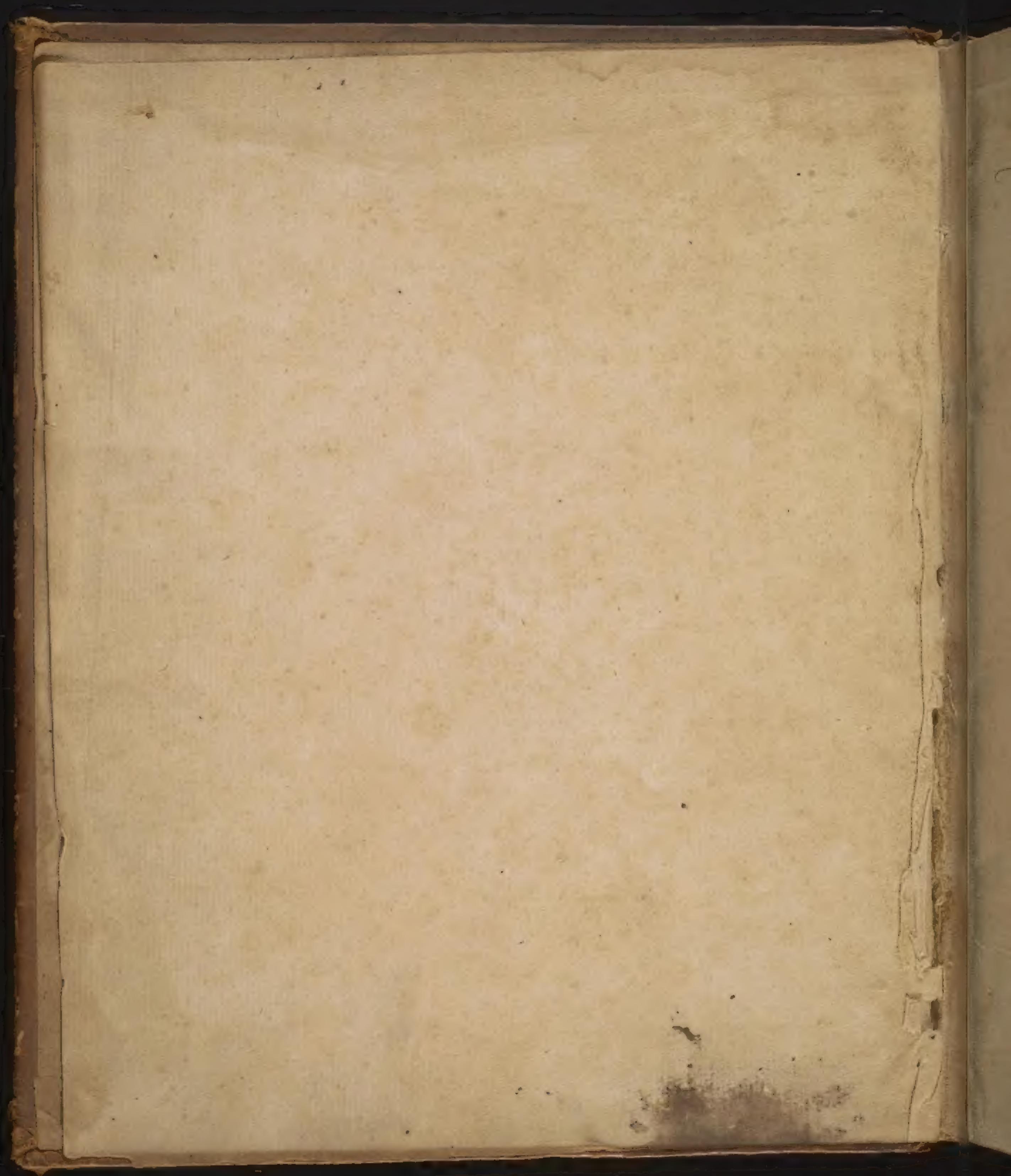
PRESENTED BY

COMMUNITER BONA PROFUNDERE DEORUM EST.

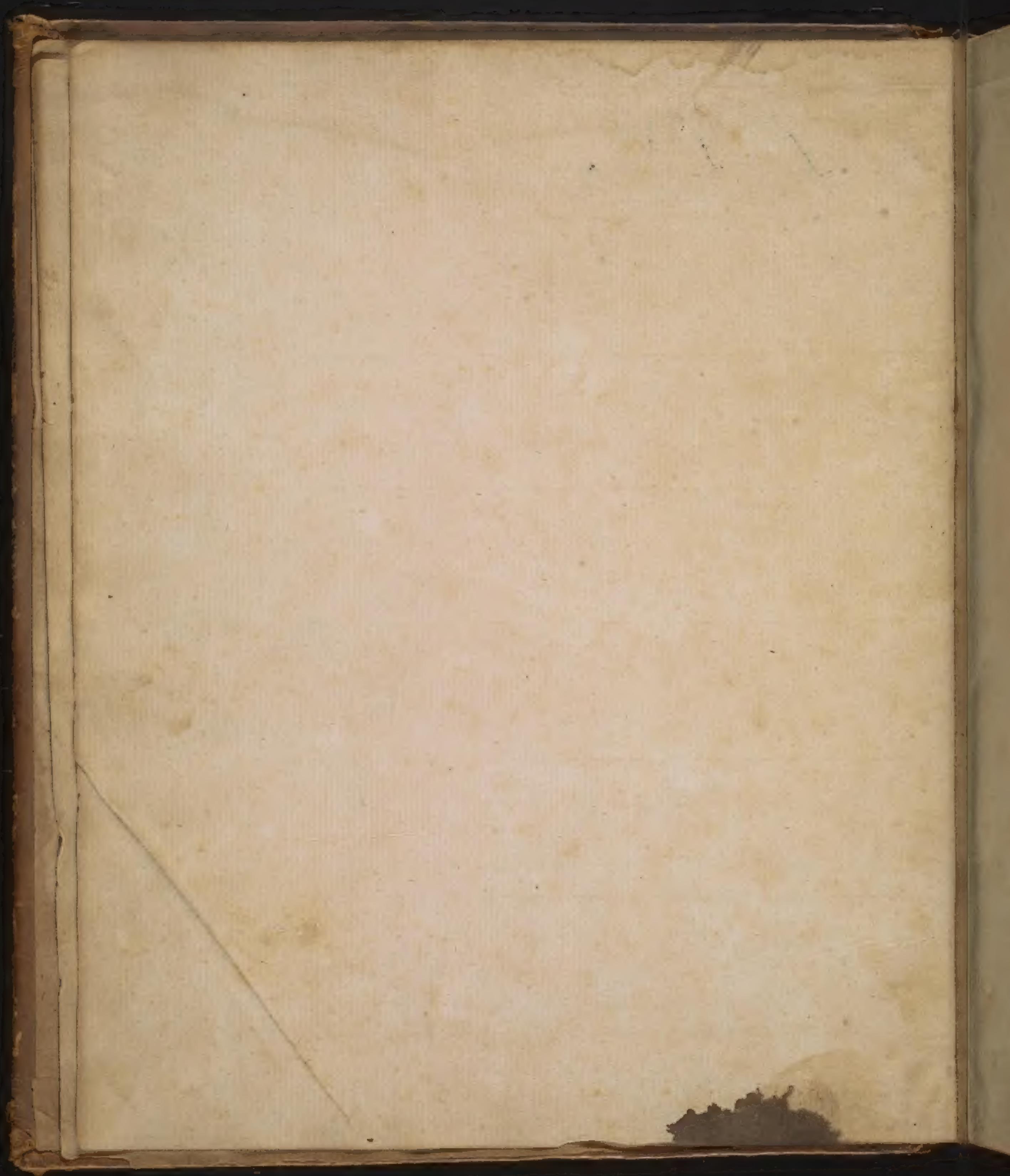
James Rush

18 13

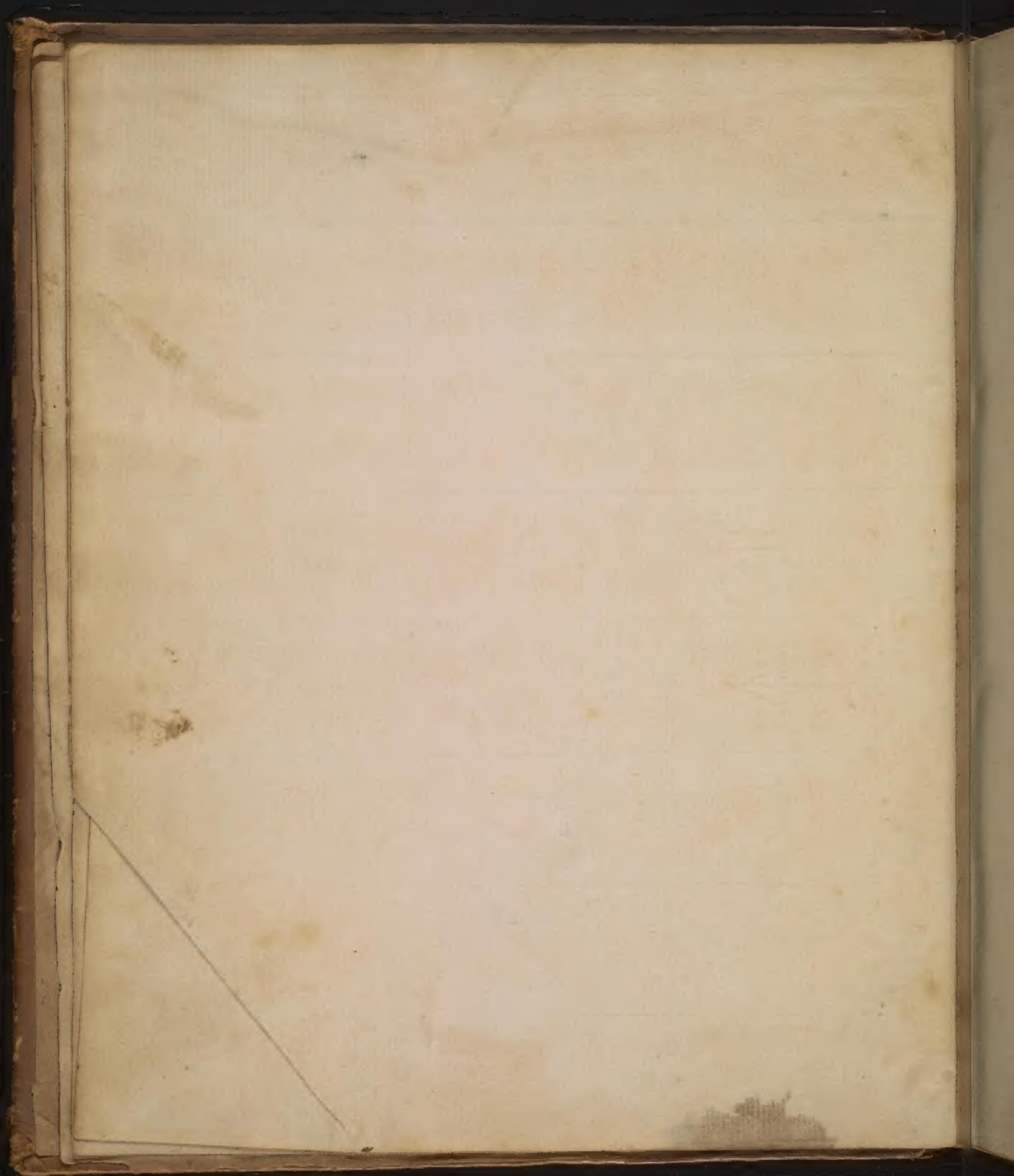




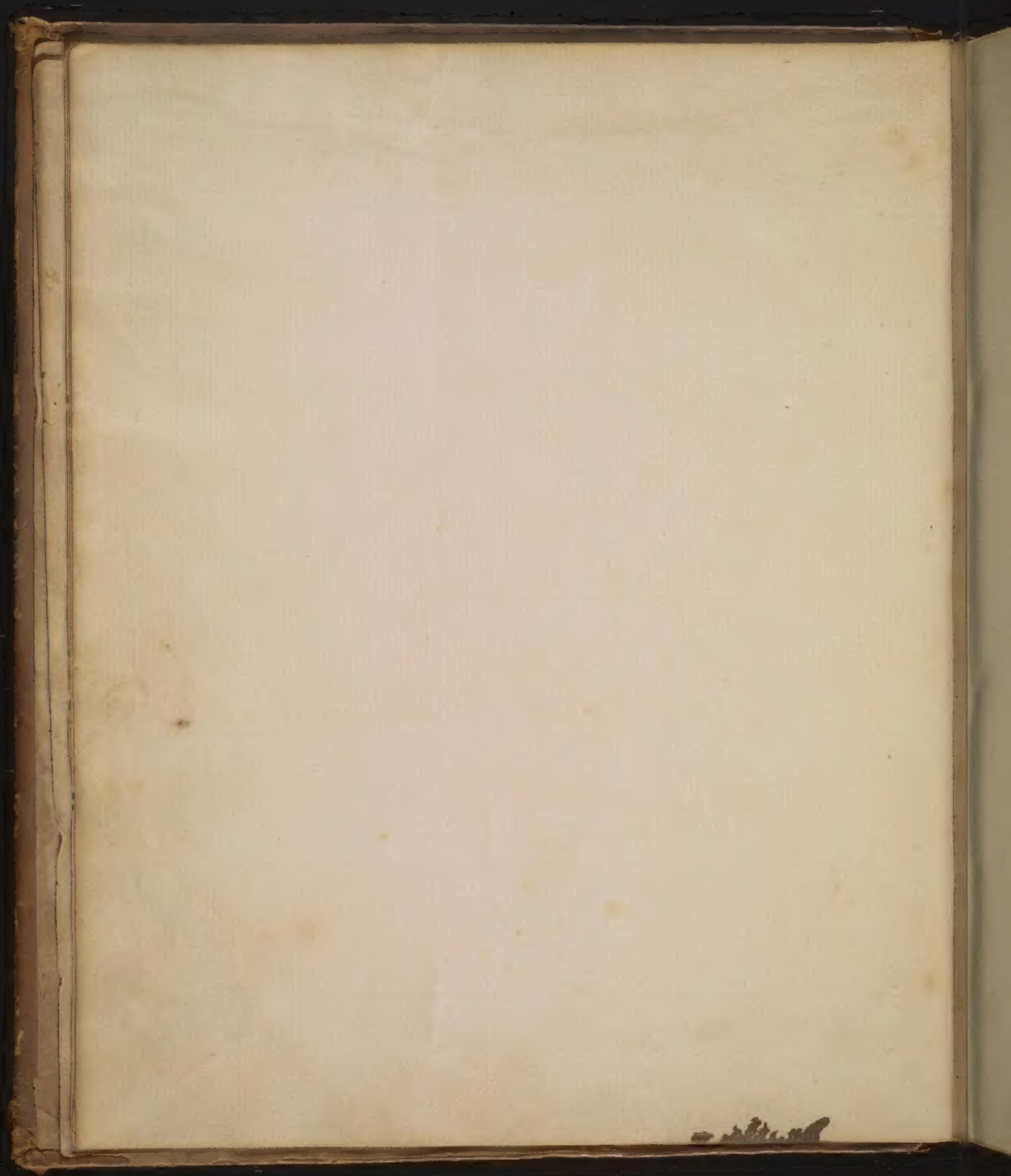
BP



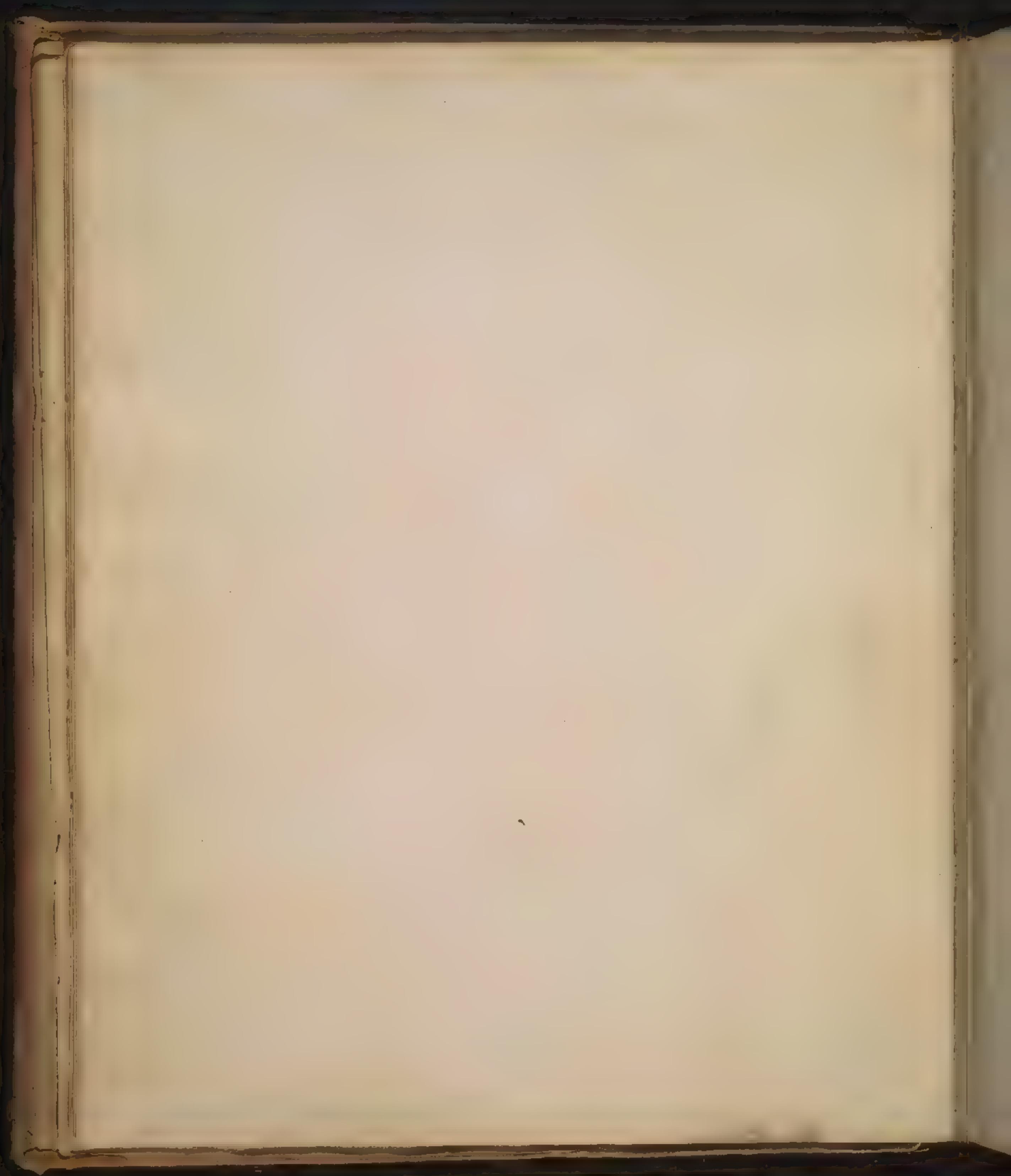




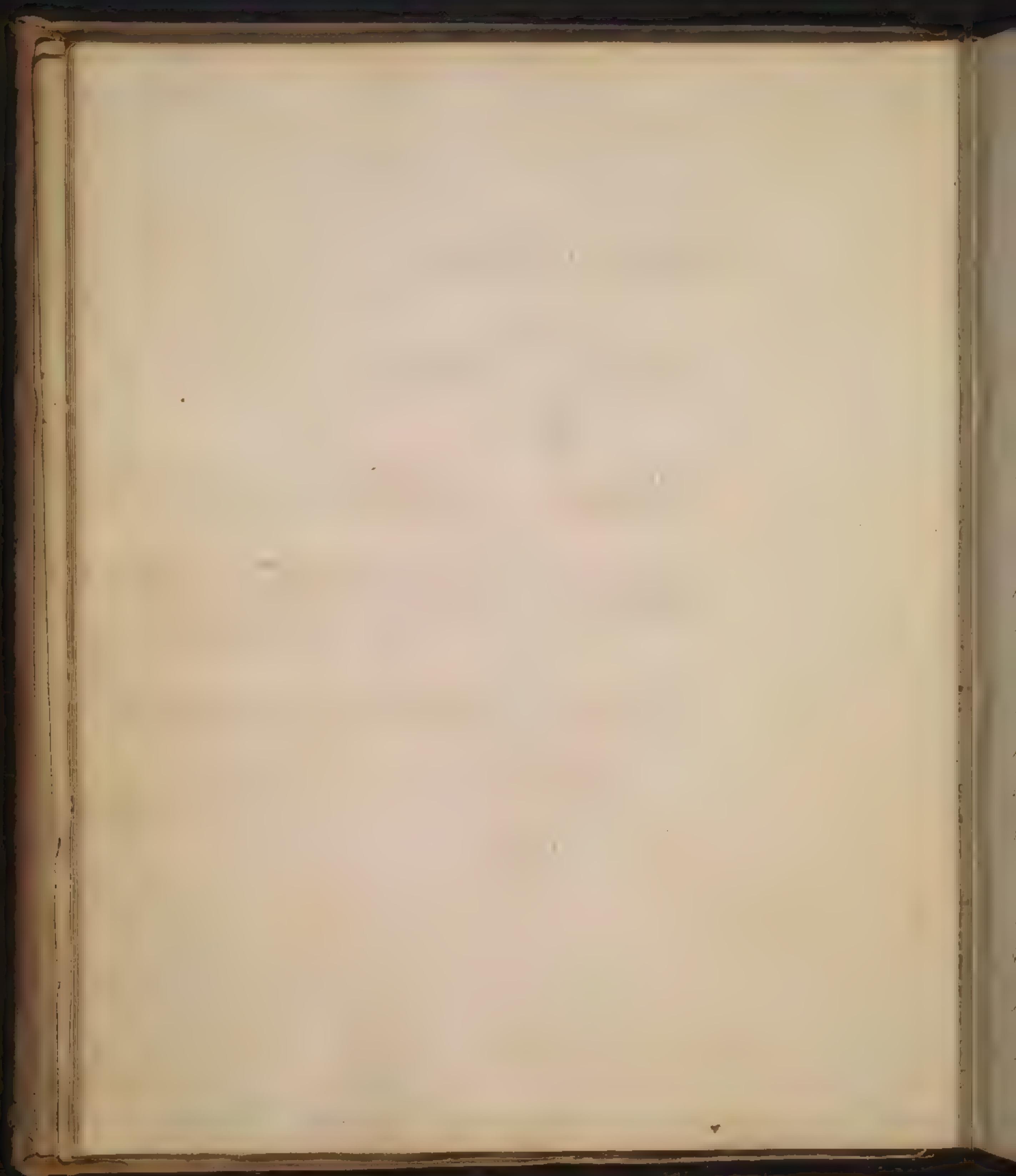






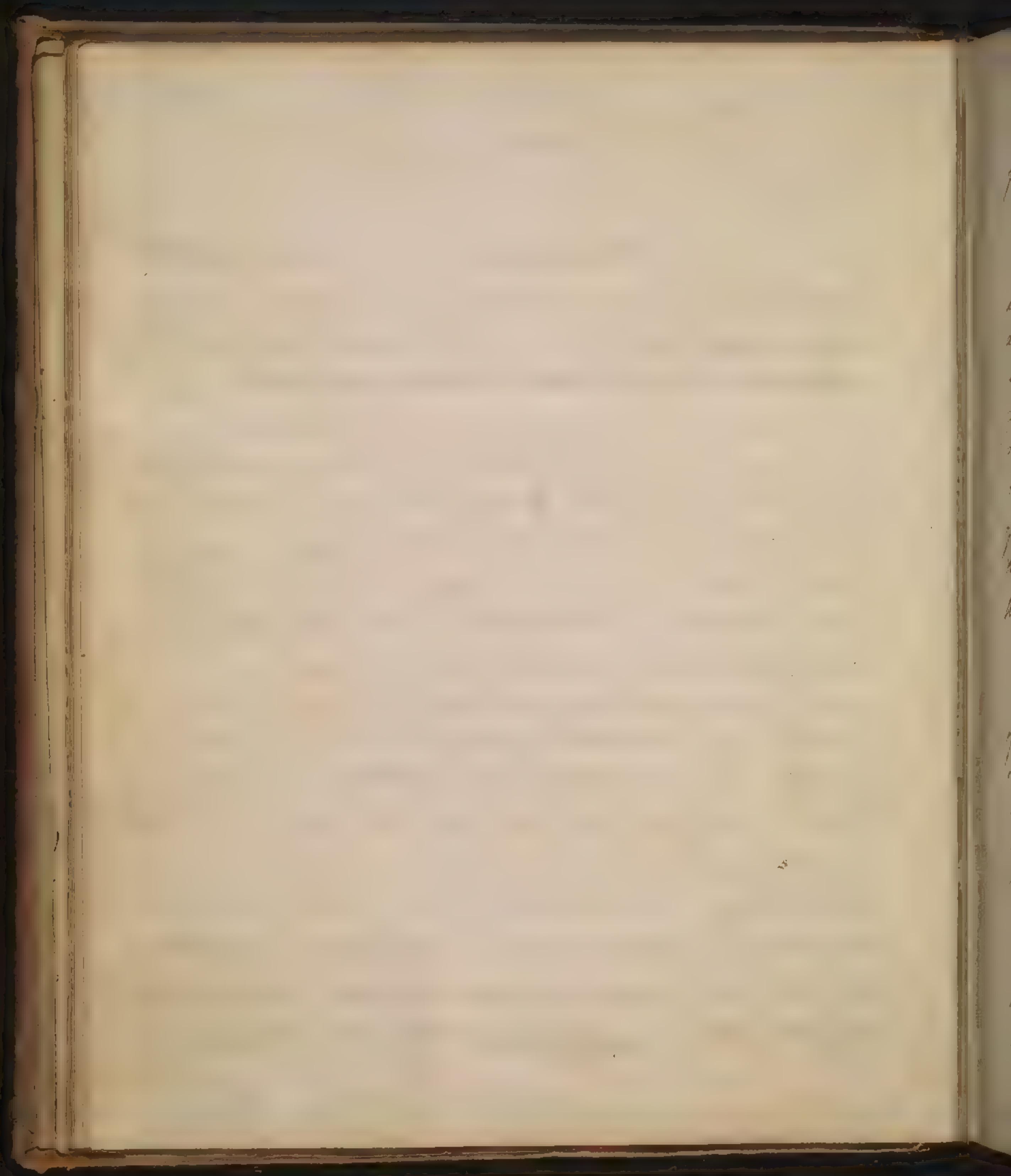


A  
Course of Lectures &  
on the  
Practice of Medicine  
by  
William Cullen M.D.  
Professor of Medicine in  
the  
University of Edinburgh  
October 25<sup>th</sup>  
1769.



We are here met to give a course of Lectures on the Practice of Physic; but it is not proper that we enter upon any part of our subject today. Therefore I shall only say a few things, relating more to myself than to the course I am to give.

I am to enter this year upon a new subject, which is of the greatest importance, as it is the great end and purpose of all our studies combined together; and requires, with a most sound judgement, our most serious attention. I shall endeavour to execute it as it deserves, as far as my attention and abilities will permit; and that on account of my learned and worthy Predecessors Dr Rutherford and Dr Gregory, both of whom courses some of you have heard. I cannot hope to give you a course so accurate as the one, or so complete as the other; yet nevertheless I am confident that the present method of having the Institutions taught by one Professor and the practice by an other, must be disadvantageous to the students; as it will be useful to them to hear different opinions on the same subject, and the sentiments of different Professors. Besides it is necessary also that you hear Dr Gregory on the Institutions and me on the practice, in order to see both of our systems completed; for it is not to be expected that we should both agree altogether in Opinions, as we both think for ourselves. Therefore while we taught different Professions, and you heard one



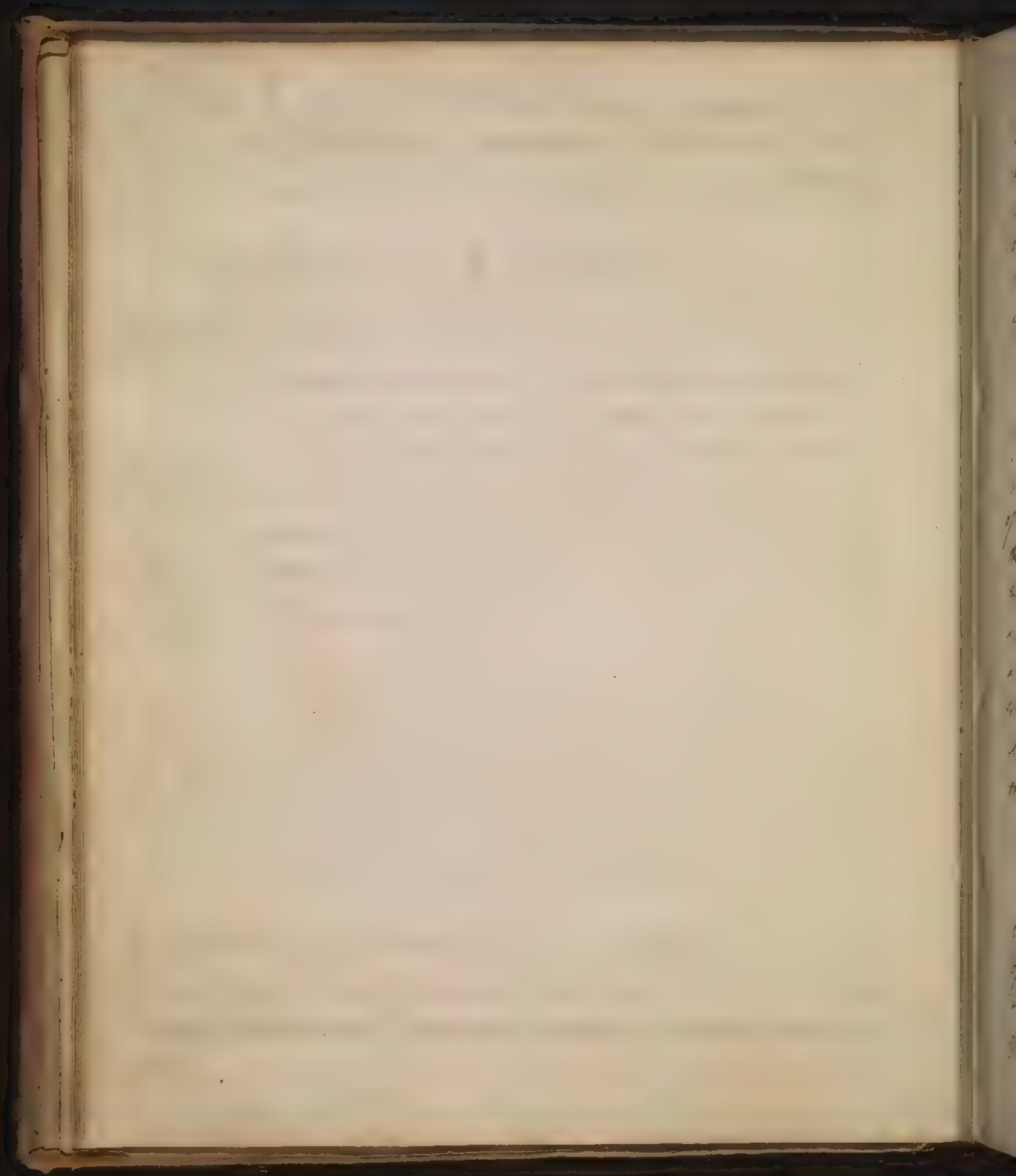
2.

of us only upon a subject, it is probable that my theory in many parts might ~~fail~~ <sup>not</sup> to have its application, and perhaps Dr Gregorius Poacher, for the same reason, might ~~fail~~ <sup>not</sup> to be without Principles.

No student of Physic ought to be too easily carried away by the opinion of any one; but he should study different Opinions, and then judge for himself. Therefore I think the present way of teaching will conduce more to the benefit of the Students than the plan you fixed before: And this alone was the view that brought me here. It was not that I thought myself better qualified than others, or that I desired to disparage the abilities of others and show my own; for it was at the desire of the Students that I came to teach this branch; and nothing but a view of their advantage could have induced them to have the Management of the University to admit of such a change in the department of the Professors.

It would detain you too long at this meeting to give any sketch of our plan, and the arrangement of the course. Therefore I shall only observe in general, that I and Dr. proceed on a Dogmatical Plan, but at the same time would be very ~~to~~ <sup>as</sup> accurate than any other in the enumeration and arrangement of facts; so that will shew in every thing that an Empiric plan would require.

I shall now give you the ordinary Introduction to a course of Lectures, by which I mean a history of the branch. I here expect that the Gentlemen are already acquainted with the gene-



general History of Physic, as far as it respects the several Sects which have subsisted, which I delivered under the Institutions - I shall therefore confine myself to the state of the practice in different ages, in general - you will be better qualified to understand me when speaking of the particular part of the method of Practice, followed by many particular Physicians, at the end of the course, after yourselves are acquainted with the practice, at which time I propose to give an account of the authors &c.

The first state of practice which we shall begin with, is that which would take place in the original rude state of mankind, and would take its rise in the first beginning of society, from the suggestions that would naturally occur to men under unsuccess, and the troublesome feelings of disease, who are prompted to make experiments for their relief; and also from the observations of many spontaneous Cures which they would endeavour to imitate - This is called The Natural state of Physic, which many at this day are disposed to admire, and expect that by it many notable cures are daily made - However, I am of opinion that this attachment to the natural physic of mankind, arises altogether from a Veneration of Antiquity, or prejudices in favour of Imperium, together with a love for the marvellous; by which they are superstitiously led to credit the relations of such extraordinary Cures.

The only thing valuable in it is the efficacy of the remedies, by which Old Women, and such persons as follow this natural state of Physic, are said to have made sometimes great cures - Yet this does not go very far; for from the Indians of America, who are in this natural state of practice, many specifics have been introduced among us, to which great



great virtues have been ascribed. They say the same of our High  
landers of Scotland, where it is said this natural physic prevails -  
And old highland women have been famous for making great cures; and  
even their prescriptions preferred to those of Physicians. It seems, how  
ever, that the practice of the highlanders is altogether at random: and  
if they do make any distinctions, it is so inconsiderable, and, perhaps, ridiculous,  
that if they make any cures, they are the effect of chance; for  
they do not proceed on any principles or regular determined foundation.  
I remember to have seen an old Woman in the highlands carrying an arm  
ful of common Peppermint, or Yer-glove, a plant that is taken into  
our Dispensatory; and knowing that it was not an Emetic, plant con  
cluded she had gathered it for the purpose of Alleviation. Upon  
enquiry, instead of finding the virtues commonly ascribed to it confirmed  
by the disease she used it in, I was informed she was going to give  
it to her husband in a Mania; that she had never known it used  
before in that Case, but had a mind, among other things, to try it -  
Their practice, then, is wholly at random -

I said that the merit of this natural physic consisted  
together in the knowledge of remedies; and therefore as an objection. Did  
it is to be observed that many superstitious remedies are always em  
ployed in it, as Amulets, Talismans, &c &c. and none of these could  
have any effect, unless accompanied in their application with effic  
acious remedies. Indeed superstitious Opinions, and the mixture of  
superstition with the application of remedies, have always been more  
or less a disgrace to the Profession.

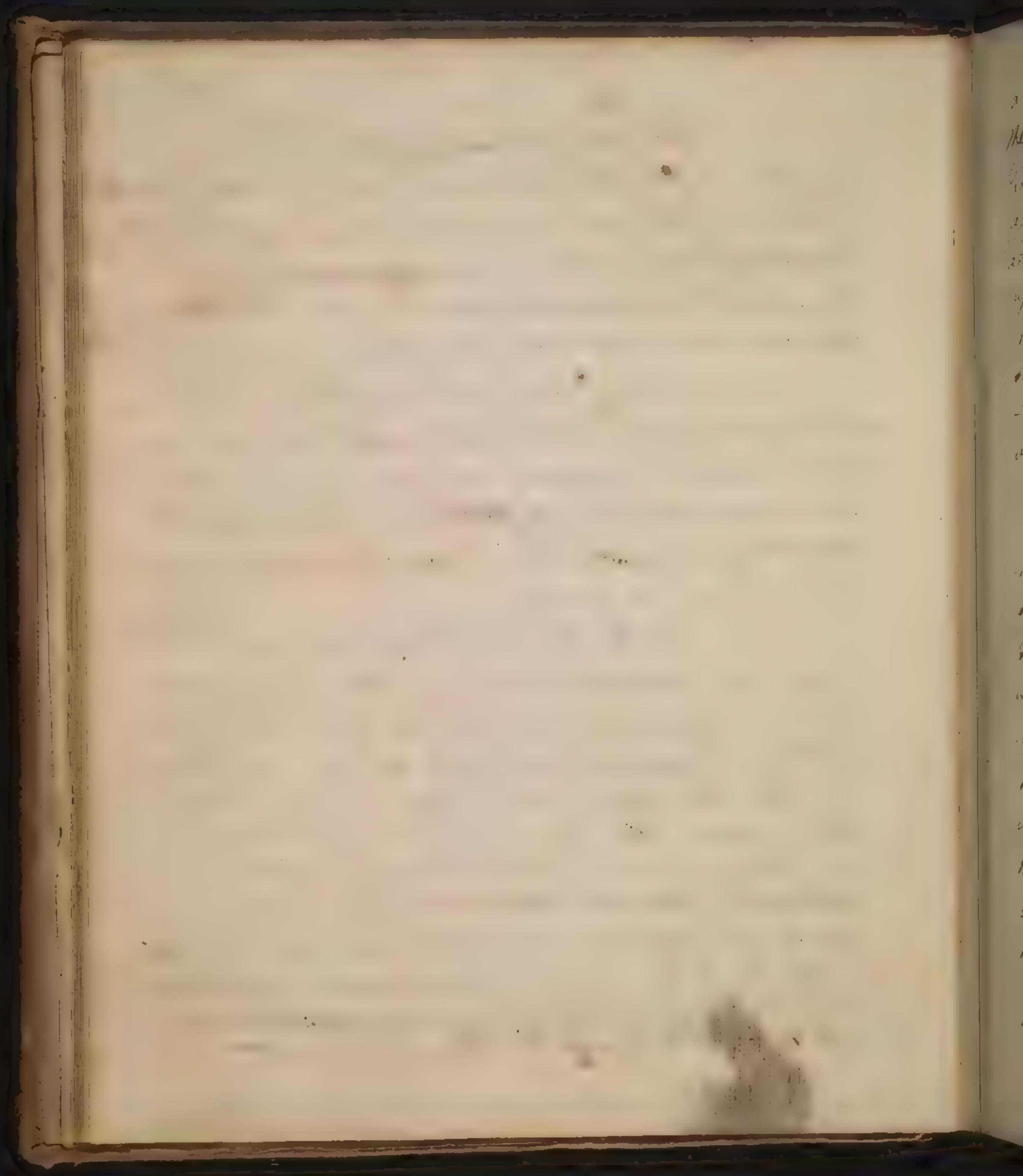
Further



Further, during this state of physic (as was intended among the ancient Egyptians) the art was entirely in the hands of the Ministers of Religion, which was occasioned by a few artful men undertaking to lead the rest. This has often been done in Law, Physic, and Divinity, as, having such a view, they would readily take hold of such things as served the interests of men.

In Egypt the practice was confined by Law to a few remedies that had been introduced, and supported, and none but these were allowed to be applied. This effectually put a stop to every improvement; but as no patient was ever sent away without something being prescribed, it was necessary to invent many placebos to serve such purposes.

At this time, while the art was confined to the Temples, the Practitioners had to do only with Chemical Diseases, such as were brought to them. But afterwards they sent out Clinical Practitioners, who went about and visited the sick in their beds; during which period different sets of physicians arose. As to the state of physic in this time, we are in doubt what it was, even in effect. However, it was at this period that the great Hippocrates flourished; though with regard to him, we cannot say exactly when he lived, or what were his writings, or the particular Opinions he held. However, at that time Physic had got on a better footing. The history of diseases was now founded to, and they had made some advances to



6.

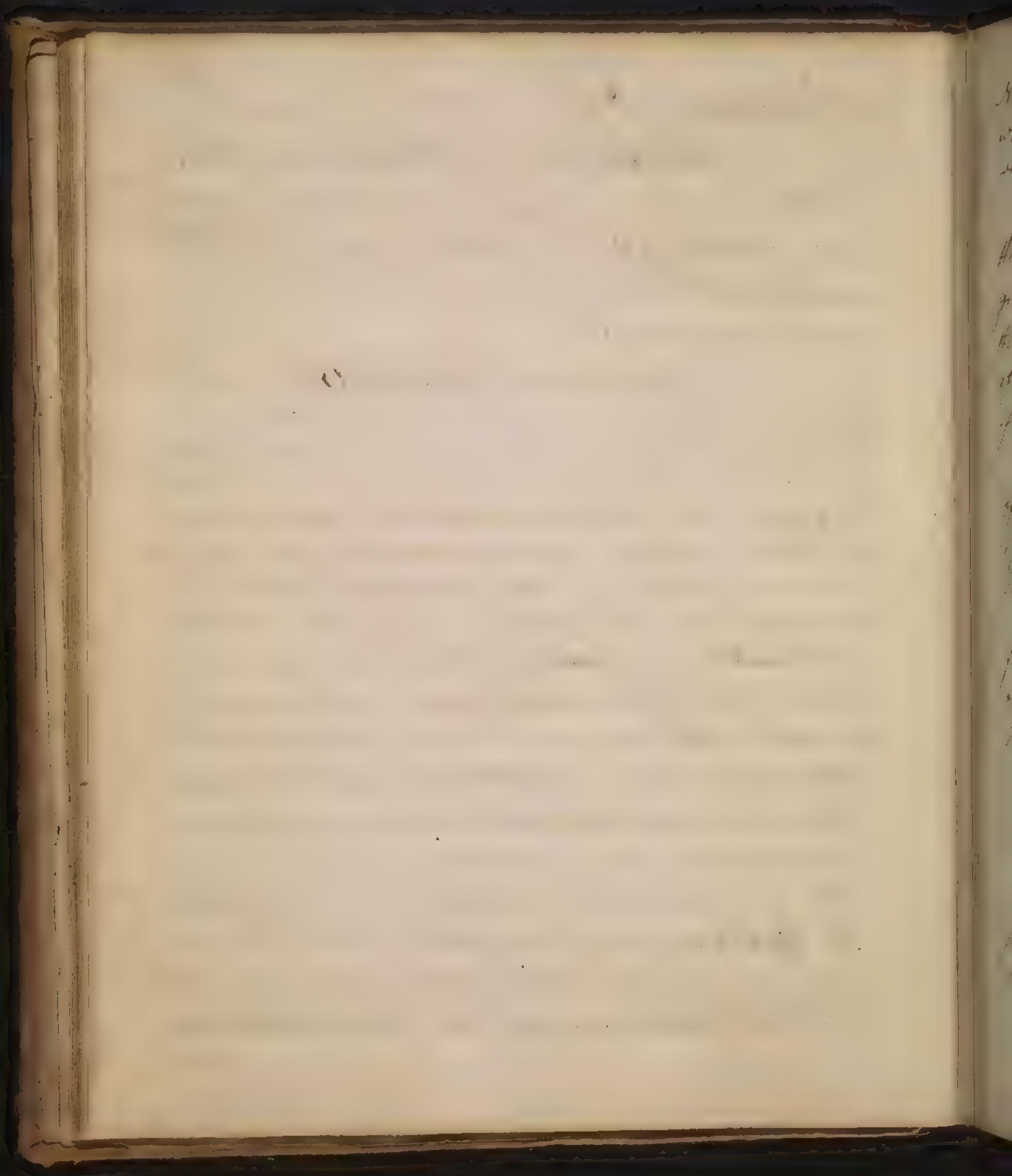
a system. Moreover they now attended particularly to the  
beginner in diseases; and many operations in Surgery were now  
in practice. However, amidst the many confused writings  
attributed to him, they have undergone such changes by copies,  
and have had such different and various interpretations laid  
upon them, that we cannot say anything in particular with  
regard to his system. all that we know is, that he proceeded  
in a Dogmatical plan; and from the accounts that we can ga-  
ther of him, we have sufficient reason to conclude that he was a  
very great man in his time.

The plan which Hippocrates followed was Dog-  
matic, yet it would be very silly and extravagant in any one at this  
time to quote him on a Physiological Subject, and whoever  
does it may indeed hereby show his learning, but very little  
in commendation of his subject. Hippocrates and the other Dog-  
matists, his followers and Contemporaries, though they entertained  
theories, were not very nice in the application of them; and  
in their practice formed general indications only, upon which  
they proceeded: such as "to take away the redundant <sup>parts</sup>". They  
also laid it down as a rule, that Nature cures Diseases,  
and that her method was to be followed by the Physician, but  
I say it can be shewn, that their practice, even upon such  
a plan, is better conducted, and on a footing preferable to that  
of



About this time, then, and for some time after his  
-pocess, all physicians are supposed to have been Dogmatists; but  
we can say nothing of them in particular. However, at least two  
great men appeared in the profession, of whom we can give an account  
somewhat more particular.

The first of them was *Erastistratus*. He made many  
discoveries in anatomy, and as he was an accurate dissector, and  
consequently formed from thence many theoretical notions and may-  
-ers; but then he allowed to have too absolute sway over his practice,  
and not considering they were conjectural - accordingly he was  
led to throw bleeding and purging entirely out of his practice, which  
was a manifest abuse of theory, as they are known to be very  
powerful remedies, and highly useful in many cases - But he  
made another abuse of theory, which you will often more ex-  
-amine in the Physician, though perhaps not less remissious to  
the patient. That you may understand this, I must observe that  
Theory tends to make men doubtful and cautious in their prac-  
-tice; and by it they become timorous in the use of harsh medicines.  
This was the case with Erasistratus; and as it had been the prac-  
-tice before his time done Draught purges, he perceived the  
bad effects that often arose from them, he therefore pro-  
-duced on the opposite extreme, either using no purges at all,  
or the mild Dietetic ones only - The major Sallens non  
Soere



Helen, which was given by Hippocrates, and is a maxim which prudence and our own health naturally suggest to us, was strictly followed by Erasistratus.

Nearly contemporary with him was Herophilus. He also cultivated Anatomy, paid strict attention, and took a great deal of pains in accurately examining and ascertaining the pulse, and other parts of Pathology. He also searched much after remedies: and indeed this may be the pattern of the present age.

Much has been said in the commendation of the Empiric sect, which appeared soon after, as a proper plan of studying and practicing Physic; and was imputed to Herophilus, and his Disciple Phrenes of Cos. But it appears that their plan is rather specious than well founded; for they never have had any effect either in exploded theory or improving practice; at least they leave no traces of itself. The noted Sextus, though he has been surnamed Empiricus, was not so in his profession, but proceeded in his practice on a dogmatical principle.

You will observe that I am delivering at present what may indeed be called history, but which is not strictly such; all I intend is to give general Reflections on the different forms the practice of Physic has put on at different periods.

The



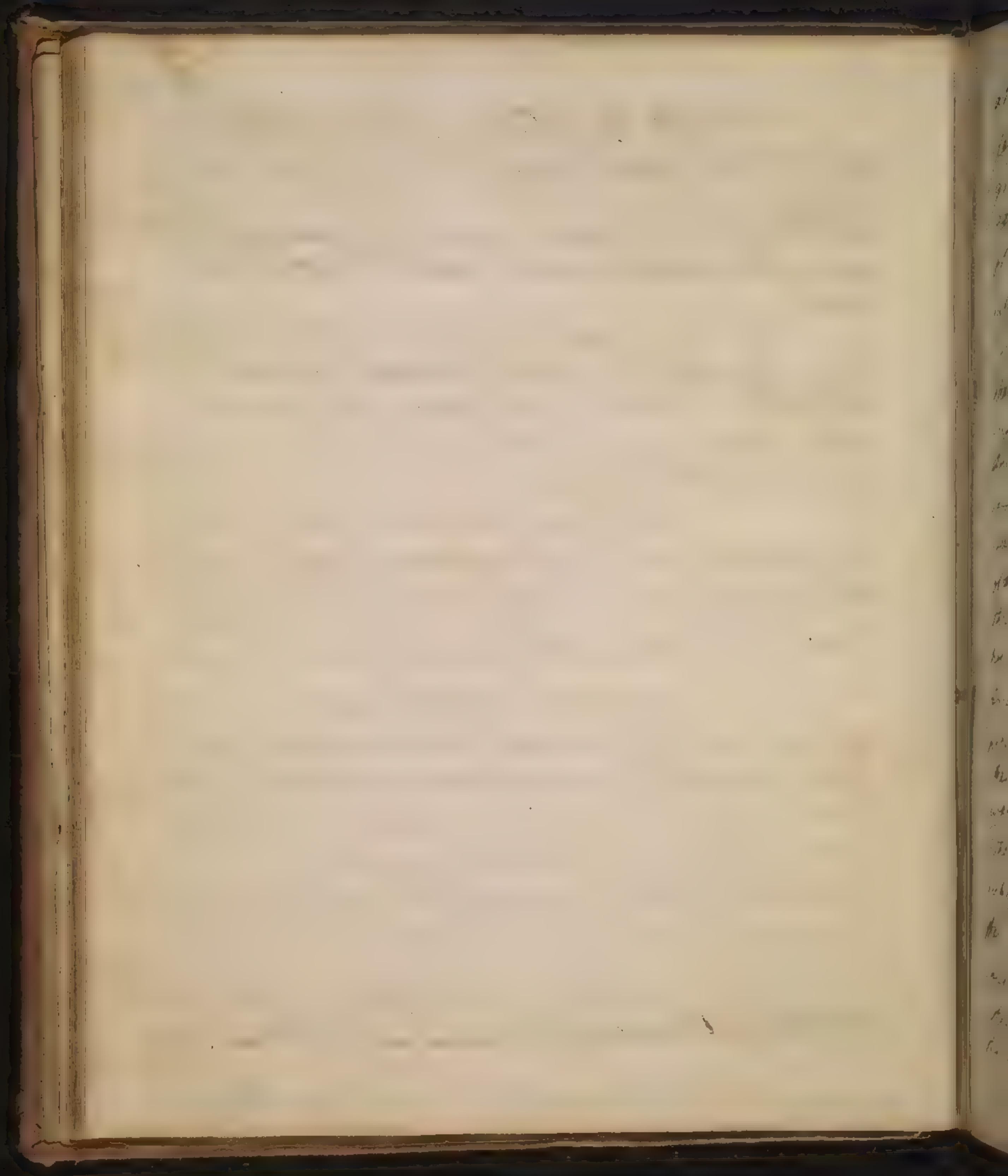
The fifth state of Physic which I mentioned, scarce deserves to be mentioned at all. It is merely such as this dog prevails in many parts of the world, where Science is not cultivated; and even as near as in our own Country, where the man of the mountains has been reported to perform great cures.

Next, physic appears connected with religion, as was the case in Egypt, &c; and we all know that there was a time when the Druids were the only Priests, Lawyers, and Physicians - tables relating to physic in this period being hung up in the Temples Dedicated to Belusorus.

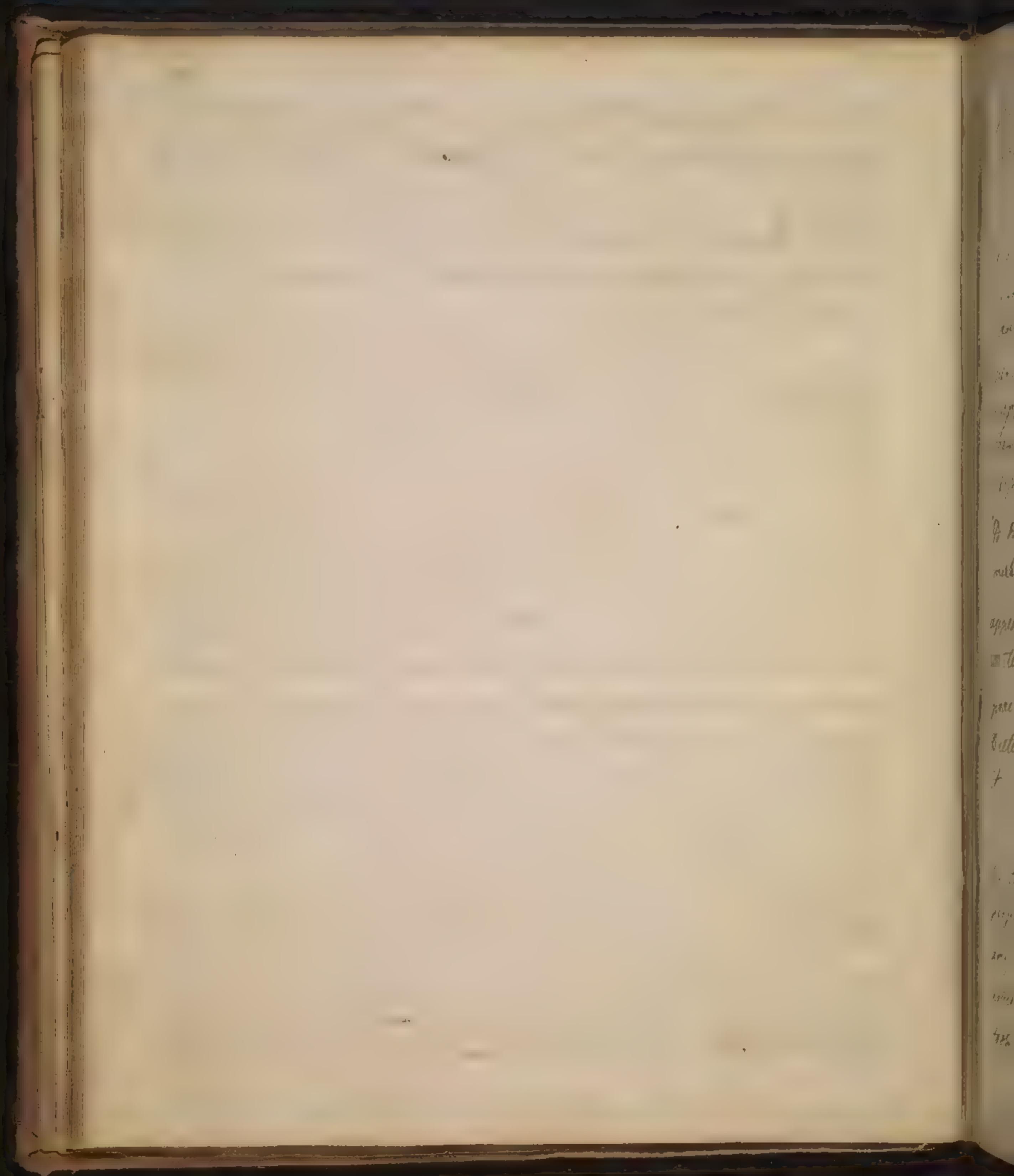
Then we viewed the state of Physic in the days of Hippocrates, which, with the character of this great man that I would give you, is briefly summed up in what Dr Boerhaave has said of him; whom you may consult.

The first remarkable deviation in Physic after this, was made by Cratistatus. He connected theory with it, which he trusted too much to, allowing it to govern his practice entirely: But immediately after him came Herophilus, who, on the other hand, as much disregarded theory: and it was either by him, or very soon after, that the professed Empire is set up.

The next remarkable state of Physic was in the days of Aristotle - This carries us over to Rome, where



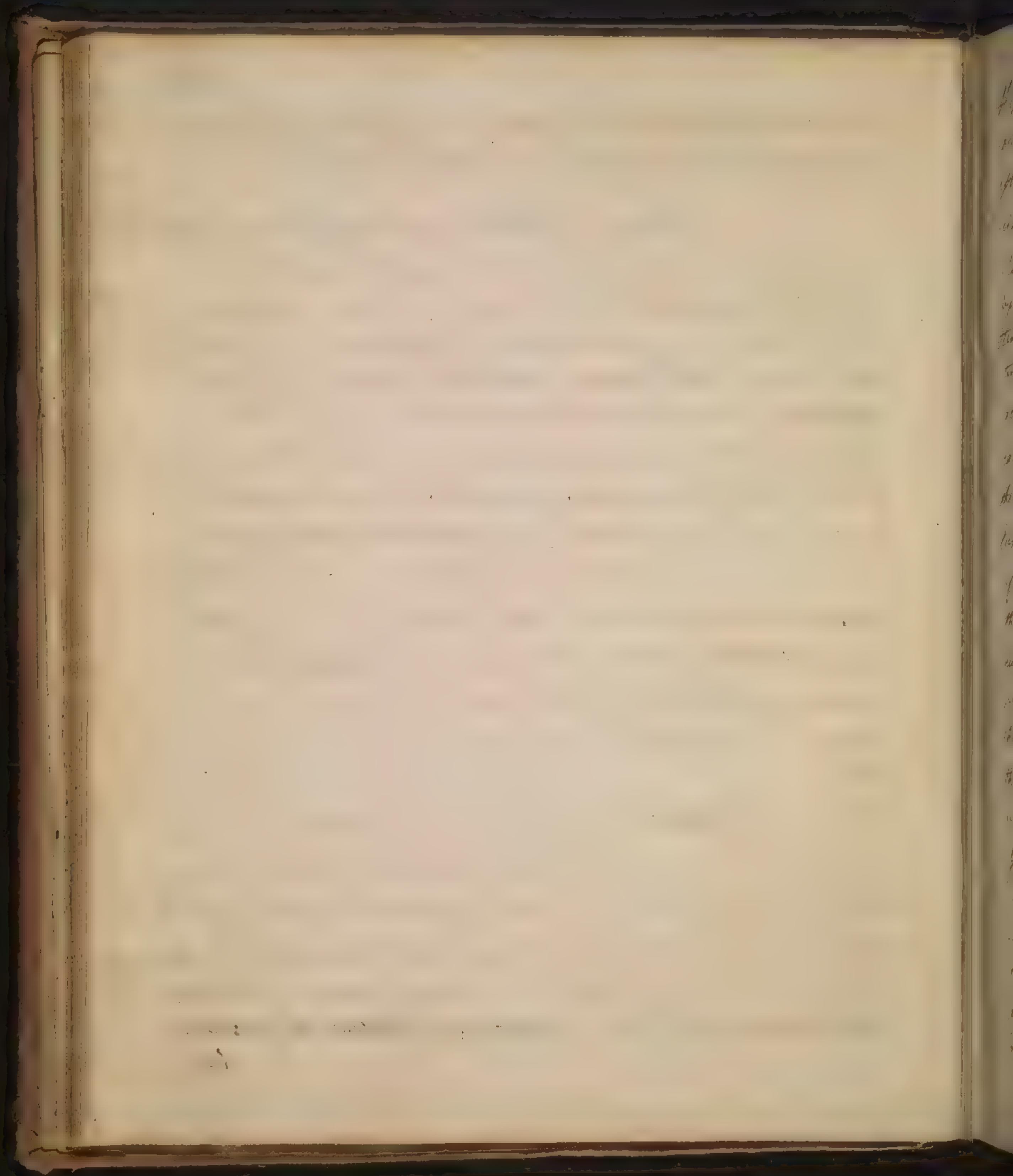
at first they had no Physic among them, but what was performed by Charms. Here Asclepiades conducted himself with great policy. The Romans before his time had got a prejudice against the Greek Physicians, on account of the cruel Operations of Surgery performed by Arcazathus; and altho; we have not sufficient Authority to say, at some apart, that the Greek physicians were all vanquished the City on this question, yet is certain that the Romans for an hundred years before this had been infected with strong prejudices against the physic of Greece. And indeed it would be necessary to introduce it by degrees, and some time would be required to reconcile them to the disagreeable practice of physic. Now Asclepiades observing this prejudice of the people, recommended himself by adapting his practice to their tempers, and humoured their luxury. accordingly his practice mostly consisted in the various methods of Gestaion, friction, and fomenting the use of Wine. By these means he professed to cure Cito, Tuto, et Iucunde, which was alldg'd consonant to the luxury of this age in Rome; altho' it was the last of the three (that the chiefly studied. This method of practice will always be more or less followed in a sickly age, where luxury greatly prevails, especially among the higher ranks of people, who are generally most luxurious, and consequently most sickly. And in such circumstances many Remedies will be necessarily invented. Besides this Asclepiades also contrived a Theory according to the philosophy



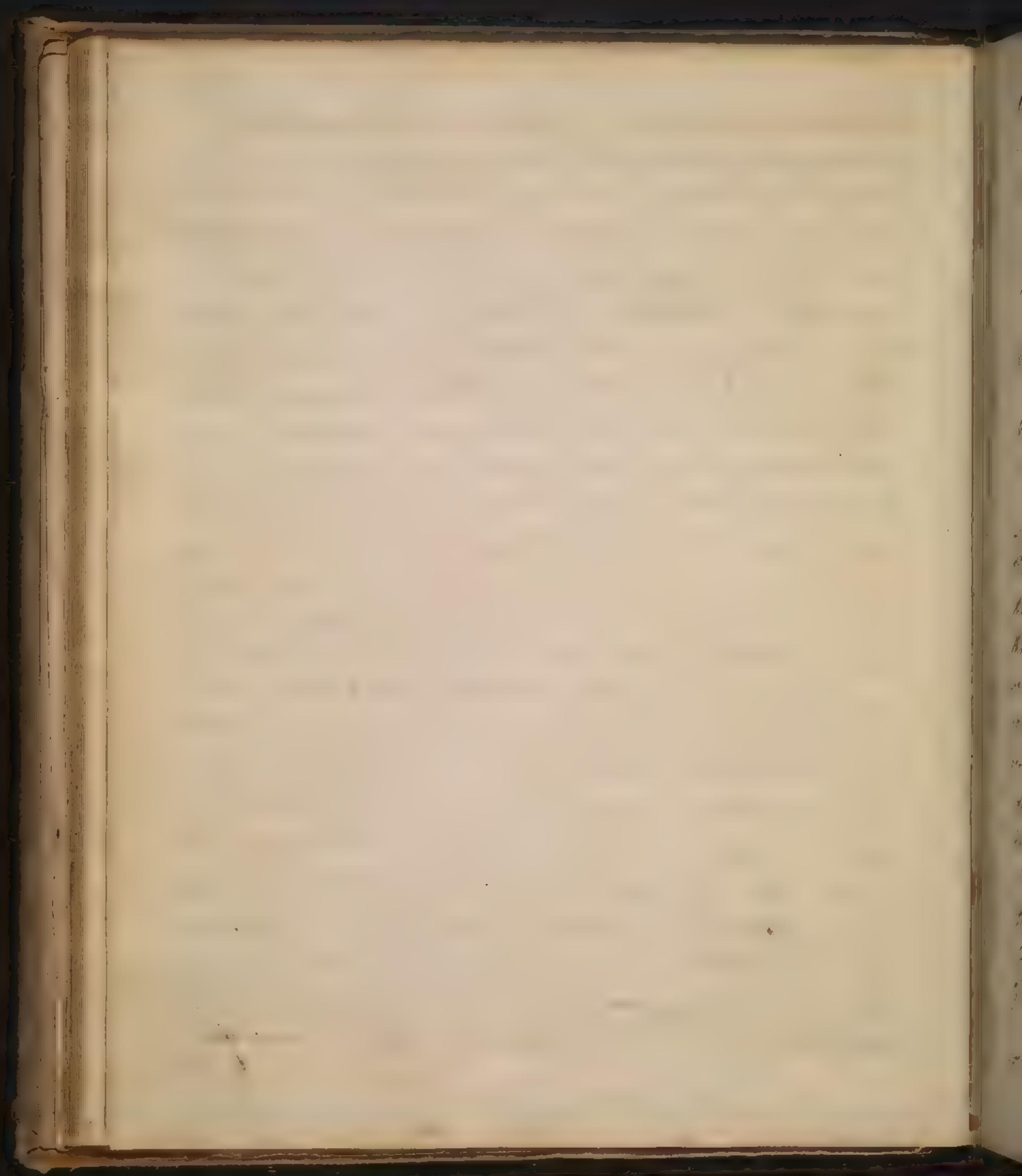
philosophy of his time &c. that of his Contemnors & Sectaries, which also had some effect in recommending him.

After him Theronion methodized his Theory, i.e. endowed it with some more precision, which was the beginning of the methodic sect, of which all the principal physicians at Rome were till the time of Galen. During this period the two well known authors, Celsus and Aretaeus Cappadoc. lived, who were the only physicians of note among them who left any writing. Celsus indeed was not a pure-pepiled Physician, i.e. not a practical one; and does not seem to have adhered very strictly to any particular sect, but was as much an as human Nature will admit; for it appears that he was inclined to the methodic sect. The other writer, Aretaeus was of a sectary called the pneumatici. His practice was bold and enterprising; for every means in his power, Dietetic, Pharmaceutical, and Chymical were employed in it.

After this followed a very remarkable period, begun by the famous Galen. Hitherto the state of Physic had been much perplexed, and on an erroneous footing on account of the opposition and extravagance of Sectaries: but in this next period physicians were as far by a wide imitation. In short Galen at that time took the lead in Physic, pretending to follow the system of Hippo.



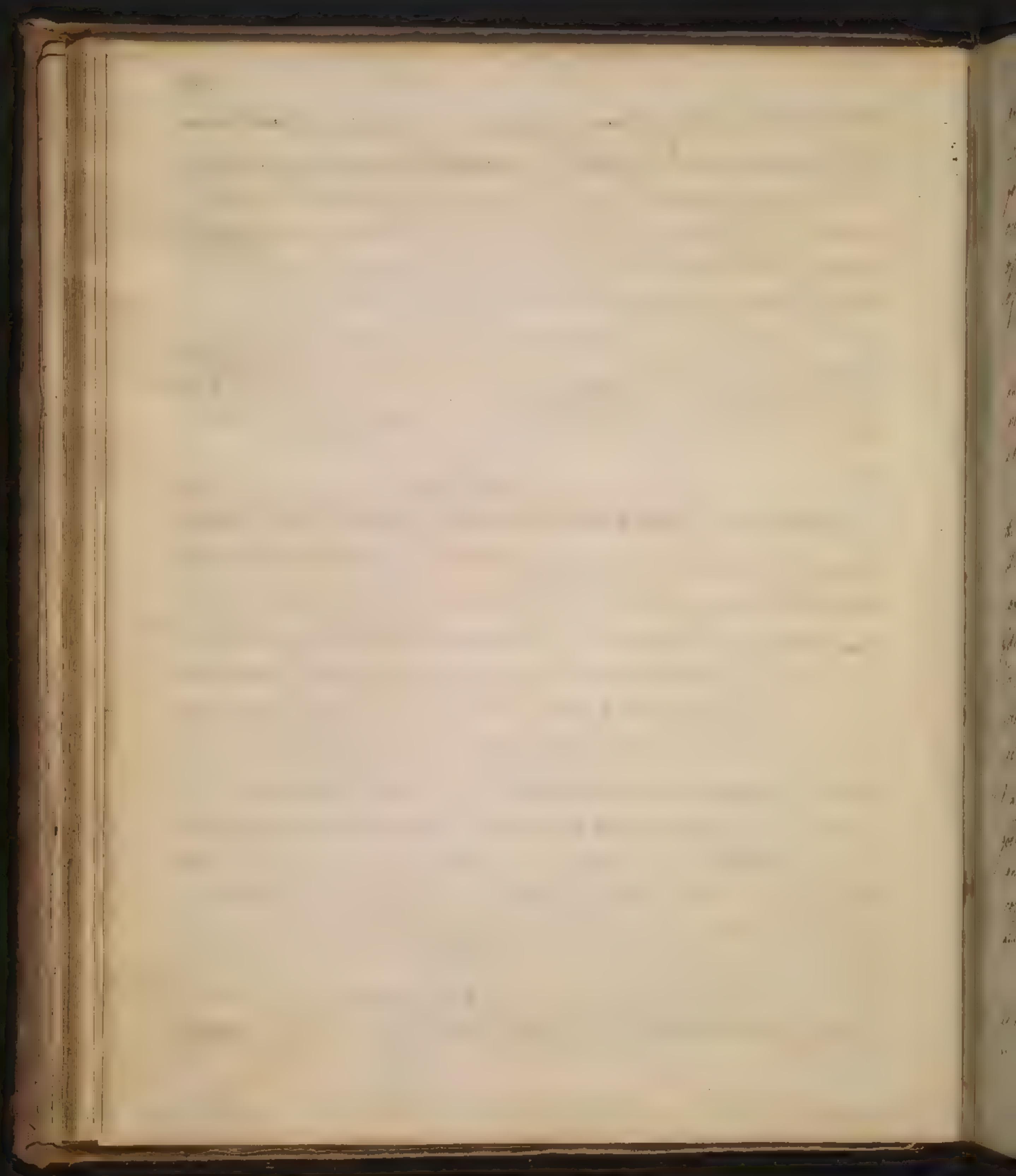
Hippocrates - He admitted in his practice all the remedies he could apply, and that is all that can be said for him; but he also established a Theory on a very narrow foundation - Many Physicians wrote after him in the succeeding Centuries; but all followed Galen exactly - This was occasioned in great measure by the Fall of Literature, which took place soon after Galen's time - Learning was indeed cultivated in some degree, in the mean time, in the East; and there was by that means a chance of its revival, remaining with the Arabians, or at least the Writers so called, whether they lived in Asia, Africa, or Europe - By means of these Arabians, then, Physic was in some measure restored in Europe - However from the 12<sup>th</sup> to 16<sup>th</sup> Century the Physicians of Europe were simple imitators of Galen - But about this time the Greek Language began to be studied: and now there arose a dispute among the Physicians, some of whom were for restoring the physick of Greece, and others for keeping to that of the Arabians their Teachers - By these the famous Dispute was handled about this period something bloodletting, which made so much noise at that time all over Europe - However, both the Greeks and Arabie were entirely Galen's system; for in the main they were both in imitation of him. This division was not sufficient, but something stronger must necessarily occur to overthrow the System of Galen - Accordingly soon after Paracelsus appeared. He made Chemical Remedies more known, by which he made many notable Cures; and being



being of a bold overbearing temper, openly declared himself an Opponent to Galen, Avicenna, Hippocrates, &c, and making a great noise with his efficacious Chemical Remedies, succeeded pretty well. However the Chemists (who were the followers of Paracelcus) hustled too much to this remedy, and thereby came to neglect a proper attention to diseases, which was a fault not to be found in their adversaries. Thus the practice between the Chemist and Galenist was very different, each having very different Principles. An attempt was made to join them together, but it was destroyed in the beginning by the prejudices of both parties.

At this time all the Schools of Europe were filled with Professors of the followers of Aristotle, and consequently his Philosophy prevailed through all of them. But in the beginning of the 17th Century Galileo made out his System, which overthrew that of Aristotle, and in consequence the Physic of Galen, which was so much connected with it. In this Century Experimental Philosophy was admitted, and the Chemists were cherished; and, what is very remarkable, the Legislature of Paris at this time made a solemn decree to restore the use of Anatomy in medicine, which but an hundred years before they had in the same way condemned, and absolutely forbade its use. Other Circumstances also concurred to produce this change in the state of Physic, as the discovery of the Circulation of the Blood, which effectually overthrew the famous system of the Liver by Galen.

The Chemists now formed to themselves a short system of Acid and Alkaline, neglecting the Organic system altogether, and



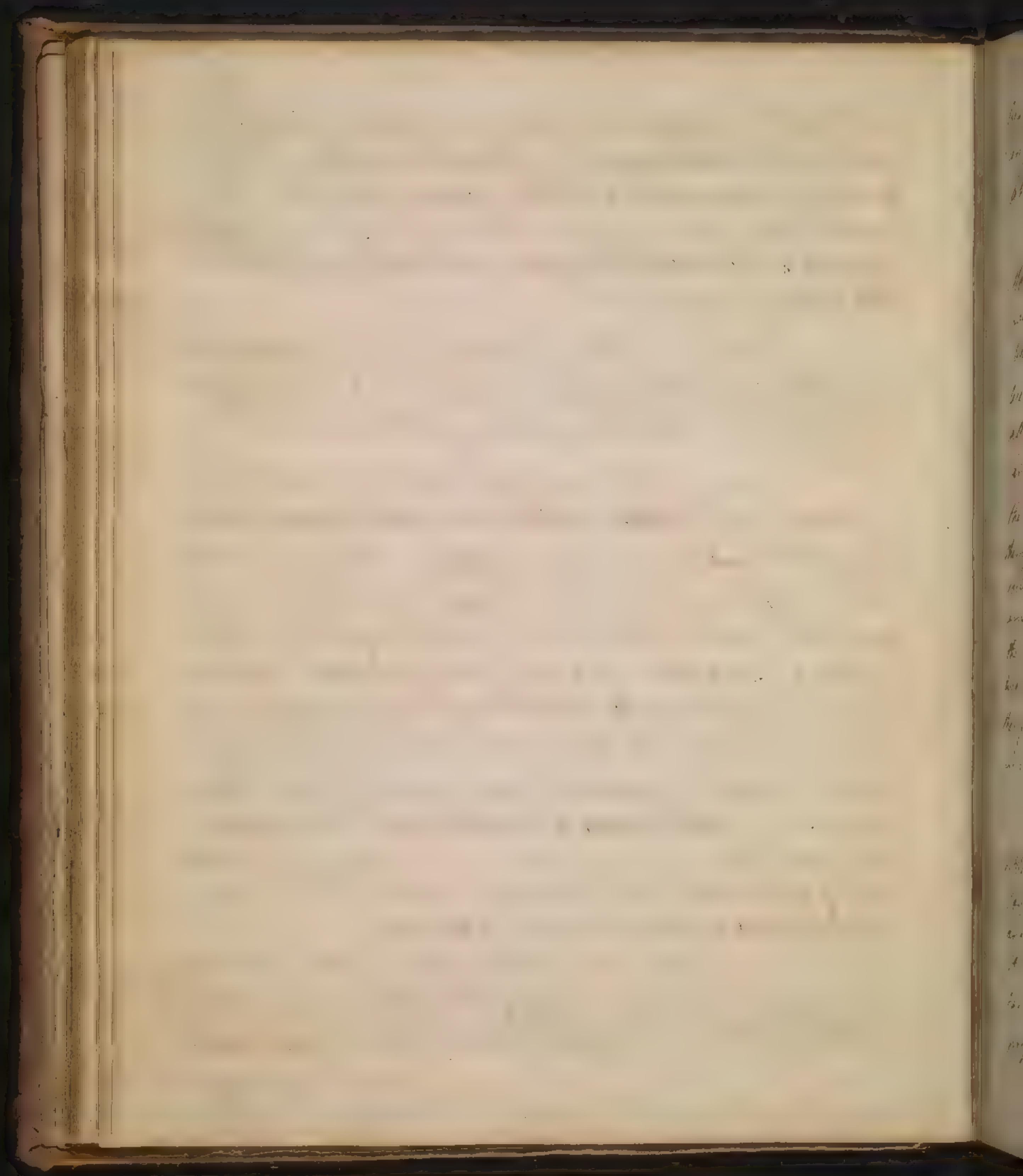
11.

and therefore might have been more strictly called Humorists, which was the Epithet given by Van Helmont to the Galenists; for the Galenists admitted of Clethora, though in the main they overlooked the Organic System, and went chiefly on the Qualities of the fluids. Even the old methodic set took no account hence of the Organic System.

However, now the Circulation of the Blood was discovered, and Mathematics, which gave a quite different face to Physic, as it appeared under Silvius, De la Roche, Stmiller, and Willis, who were the Cadets at this time.

But an accident happened soon after which greatly changed the Practice. Dr Sydenham started up, and became famous at London. He adopted the Arteria, or Natura Mortorum Medicatrix, which had considerable influence on his practice. He sought for theory to connect his facts under general heads, and not for facts to confirm his Theory. In short, he gave a model which every judicious practitioner ought to proceed upon - at present indeed, the bulk of Physicians profess to disregard Theory altogether, and adhere to Experience and Observation only. But this is true in profession only; for every one of us has his Theory, good or bad; and the Thermometer of the Physician will always have considerable influence on his practice. - I shall need proceed to take notice of the particular Opinions that are at present held in Physic, and which, therefore, influence the practice of the age.

The first system of Physic which I shall mention to you, as now prevailing in Europe, is that of Dr Hahn, which first appeared in the end of last century, but of late, within these thirty years past, has begun

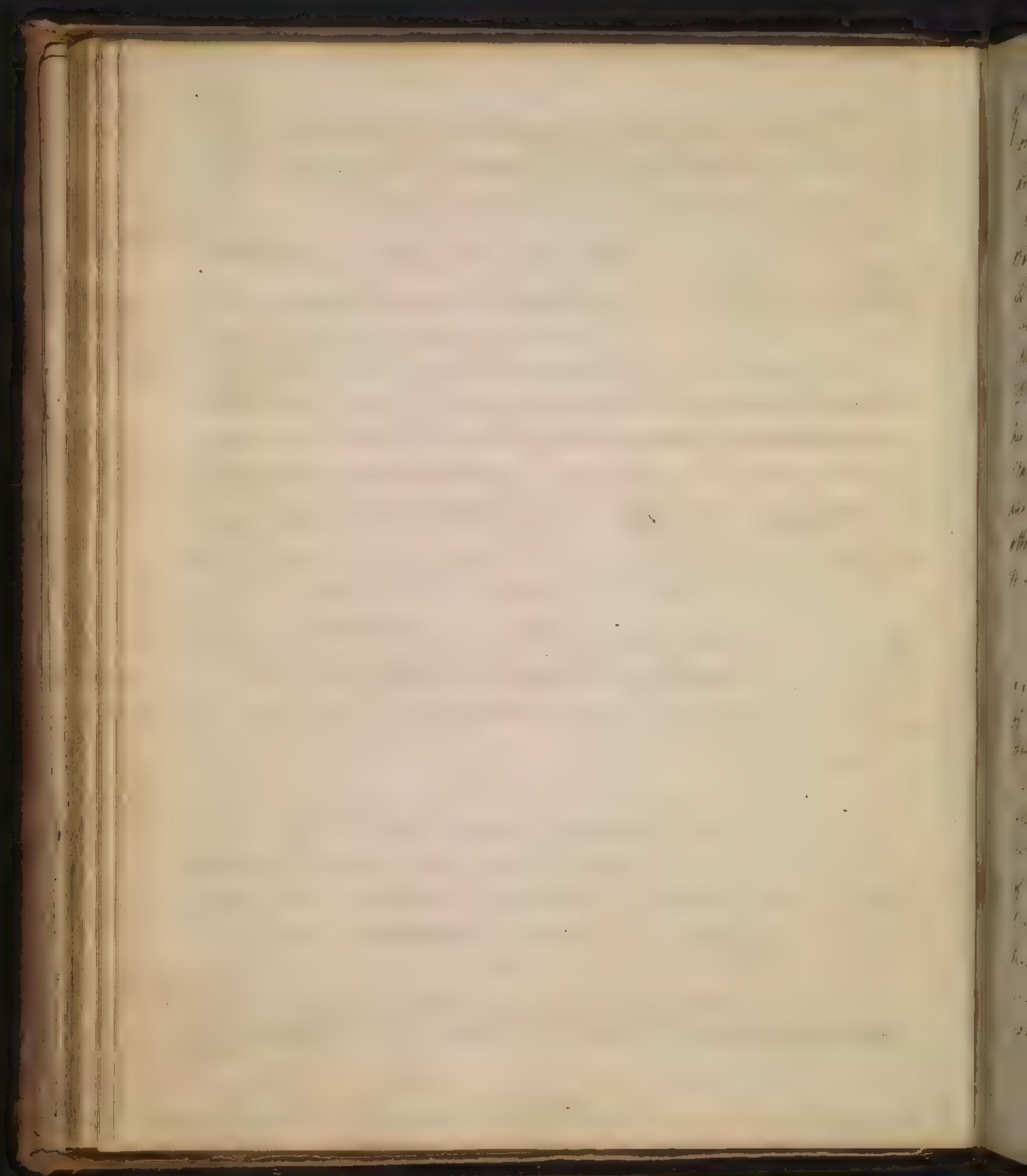


15.

began to fail; and it is remarkable that it was never received by any one in Britain till lately since it has been on the decline: While at its greatest height in Germany it never entered Britain.

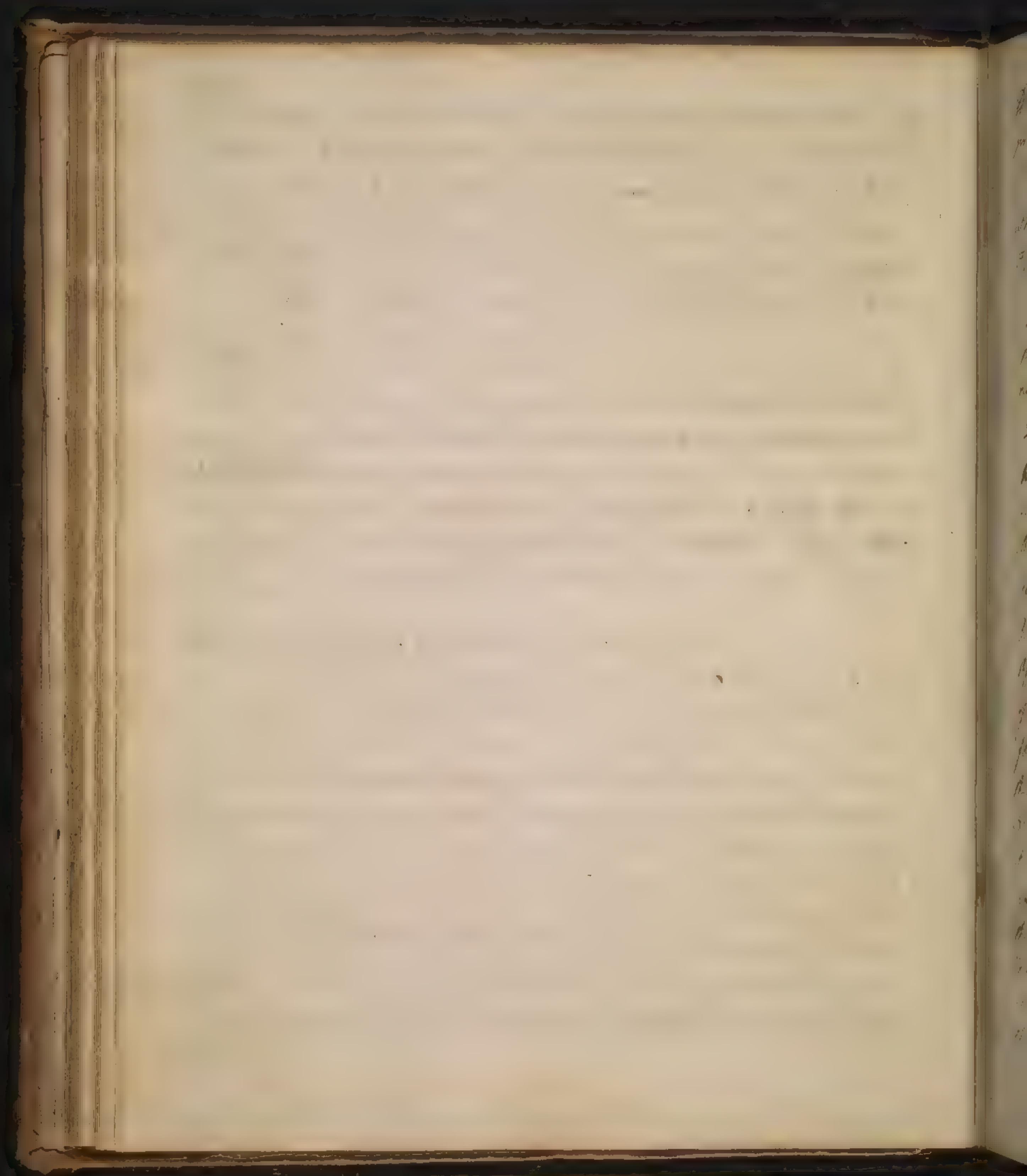
This system chiefly conflicts in the Doctrine of the Natura Norborum Mechanism, or, for the sake of a shorter expression, that we call the Autonomia - The Doctrine of the autonomia has indeed been always admitted in Physic more or less; but by Dr Hahn it has been carried much farther than by any other of Hahn thought that all the functions of the body were conducted by the Rational soul; and therefore he and his followers neglected the study of anatomy and the Mechanism of the Body - On the other hand others have confined themselves to the last, &c., rejecting the Existence of an Immortal rational soul, have adopted Materialism - However few Philosophers and scarce any physicians at this day deny that there is a rational soul connected to the body - It is indeed best to proceed in a middle course between these two extremes, as Hoffman, Boerhaave, and White have done, and therefore have acted more consistent with Virtue and the promotion and improvement of their Science.

I shall say, for my own part, altho' I think it of little consequence in Physic, that I admit the existence of a rational soul, but would confine myself to the mechanism of the body, and meddle with this only so far as the autonomia is connected with it - But Dr Hahn's system does not depend on the concern the soul has in the autonomia, as appears by a remarkable passage in the preface of Juncker's Conspectus Therapeuticus - Ith short, the effect



of Stahl's system has been to give a tried and fable practice. According they reject from this practice the use of black, Spuroni, and many other effigiations themselves. However, after all they are obliged to adopt in some measure the mechanical state of the body. Thus, they say, that the constant tendency of the system is to Philosophy, and that it is the perpetual work of Nature to obviate it; which notion also gives some particularities in this practice. This general Doctrine, indeed, upsets all Theory, but Dr De Haen has attached them very strongly, and with great success, in his dissertation de Harmonioidibus. However, this system of the Stahlians would not thrive after the improvement of Philosophy, and the study of Mathematics. But at this time Bellini and others applied Mathematics and Philosophy to the body, and had begun to reason concerning the functions <sup>on</sup> of Mathematical principles. —

In this state Dr Boerhaave found Physic, who was a proper person to reduce it to some tolerable system, being a man of general literature. He adopted the mechanism of Bellini, then in fashion, and admitted many things from the antique, adapting his system to the facts related by Hippocrates, Galen, &c. and generally those of Sydenham. In short Dr Boerhaave was a man of very extensive learning, and worthy to be greatly esteemed. I think a great deal of his system, and recommended it as the best for you to follow. — But anyone who considers that since his system was first made known, 60 years of a very indistinctive age have elapsed, in which many improvements and discoveries have been made in science, cannot expect but that by this time we should take upon us



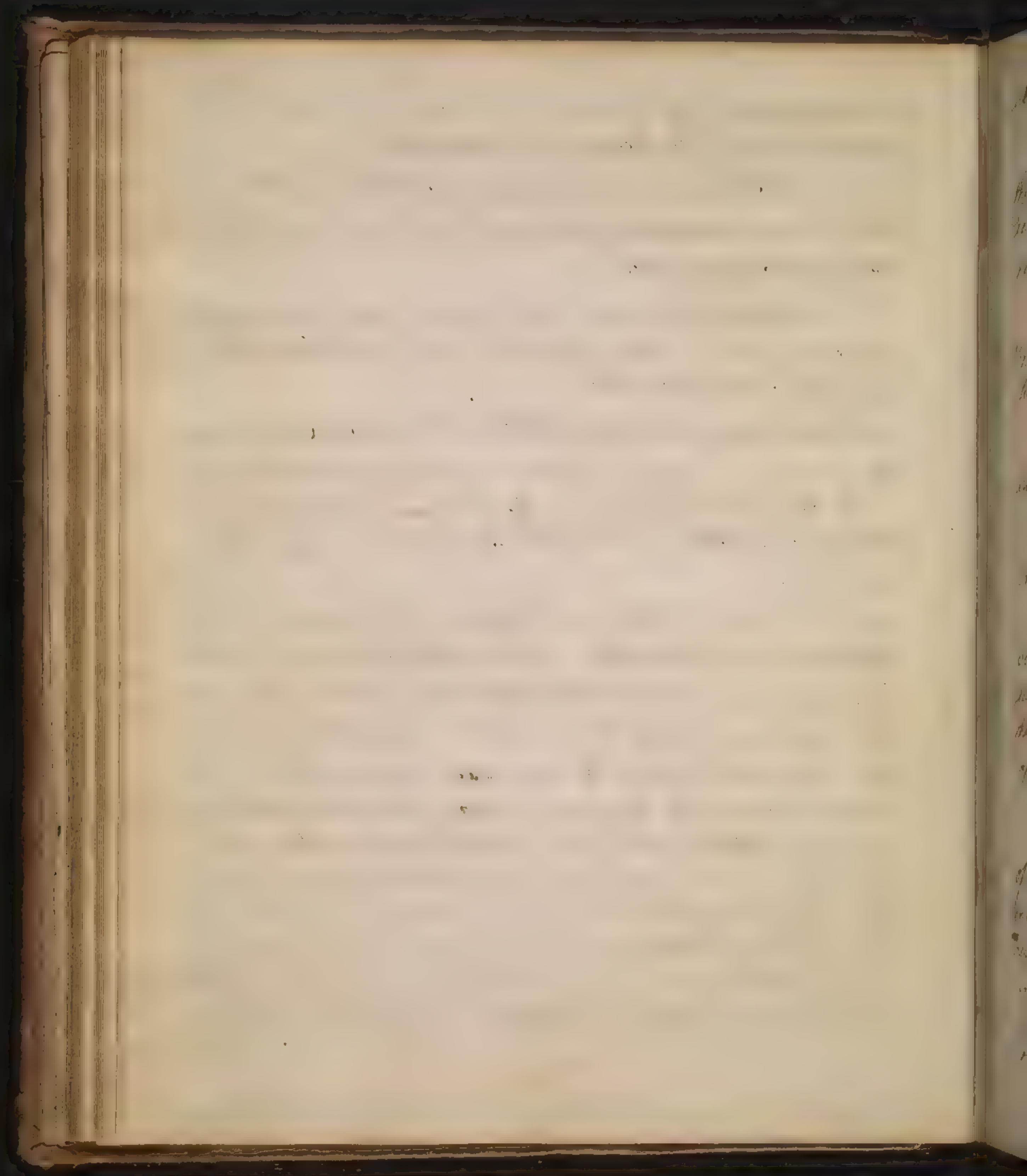
to think somewhat for ourselves - It would indeed show great  
prejudice and very little genius if we should not. V7.

I could give you many examples out of his system, in  
which he is very incorrect, but as it would spend too much time,  
I shall hint only at a few

1<sup>st</sup> his doctrine of the simple solids, which makes a considerable  
part of his system, is likely to fall every day; and he takes little or  
no notice of the living solids -

2. What he says of Air is inconsistent with his own Chemistry; and  
his Glutinorum pingue is not on a better footing than it was  
in the time of the Cartesians. Also the Experiments of Gringle &  
M'Brice have thrown great light, since his time, on the Nature of  
hurry. &c.

3. In his general Pathology he has given with great accuracy the  
affections of the circulation, &c., but I have omitted to take the ~~affection~~ <sup>with notice</sup>  
of the whole moving powers of the system, and did not consider how  
far the phenomena of the body might be owing to the affections of  
the independent parts of the mobile matter of the body, &c. The  
Nerves indeed were the last part of anatomy that was cultivated, for  
it was first attempted within these hundred years by Willis, unless  
you look upon the reveries of Van Helmont as such. Therefore  
the consideration of this part renders the system of Physic complete -  
It was added by Dr Hoffman, and now, so far as I see, the system of phys-  
-ic is complete, as & do not see that else is to be added to it, consisting  
of three parts, the Nervous, Hydraulic, and Chemical systems, or  
- word



according to the view I formerly gave of it in the Institutions. 18.

This finishes the account of the systems of physic at this time, prevailing, and influencing the present practice. I shall add a short summary of them, as they are at present received in the more part of Europe.

That of Boerhaave generally prevails through Britain, France, Italy, &c. where Physicians particularly attend the functions of the circulation, &c.

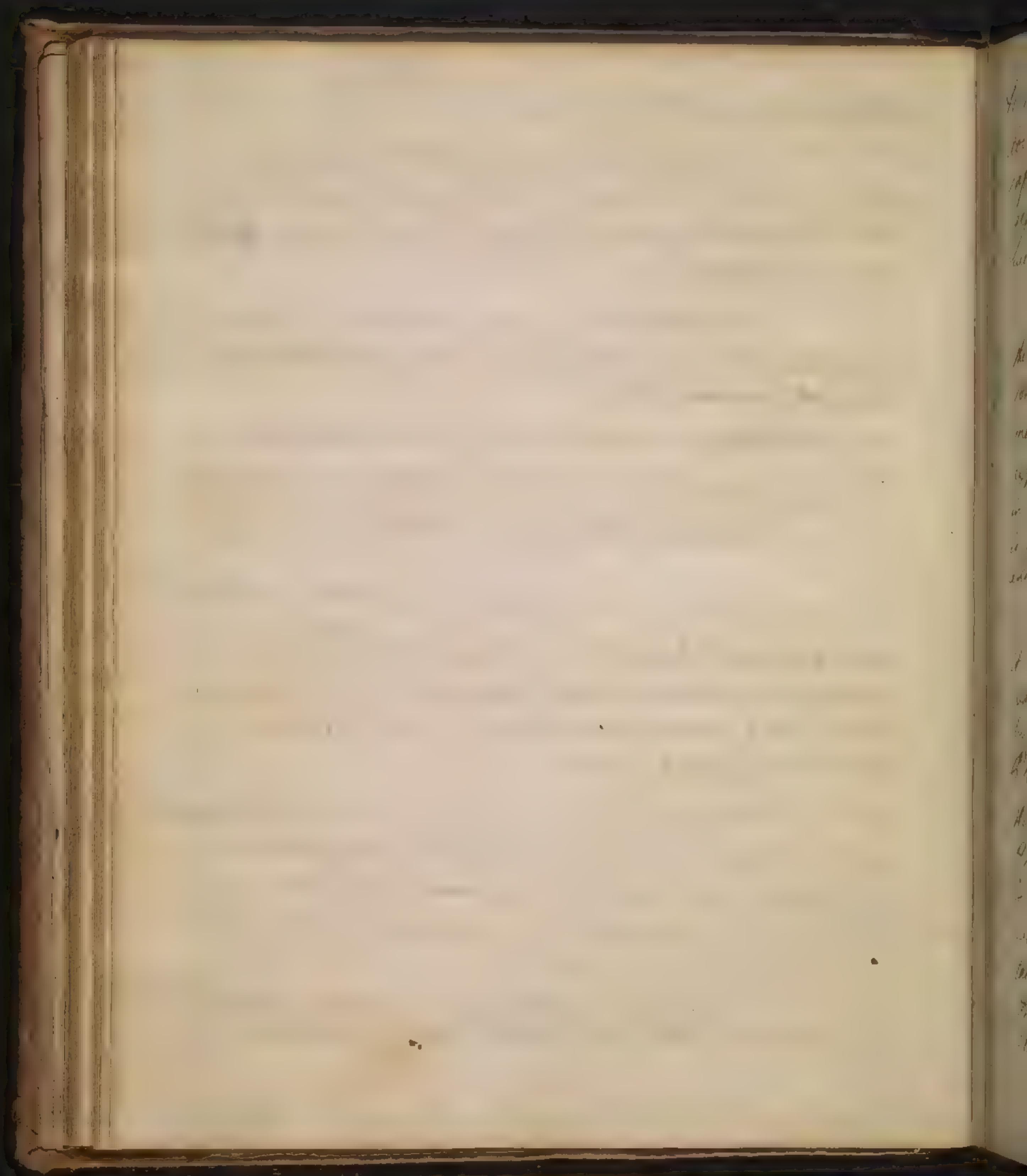
Hoffman has at present but few intelligent followers, and even then far the most borrow many things from Boerhaave.

Even Van Helmont has at this day a few followers.

The chief thing we have to attempt is a pathology of the nervous system, which has never yet been attempted by any one. Accordingly in this work I hope to show that it can be done, and that in such a manner as to improve the practice of physic and effect even the cure of diseases.

I have now given you a general view of the state of the practice of Physic, as it prevailed at different times; and especially as prevailing at present in Europe. I propose next to consider what plan we are at present to follow in teaching this very important art.

It is absolutely necessary that all students one time or other should study this with attention, so as

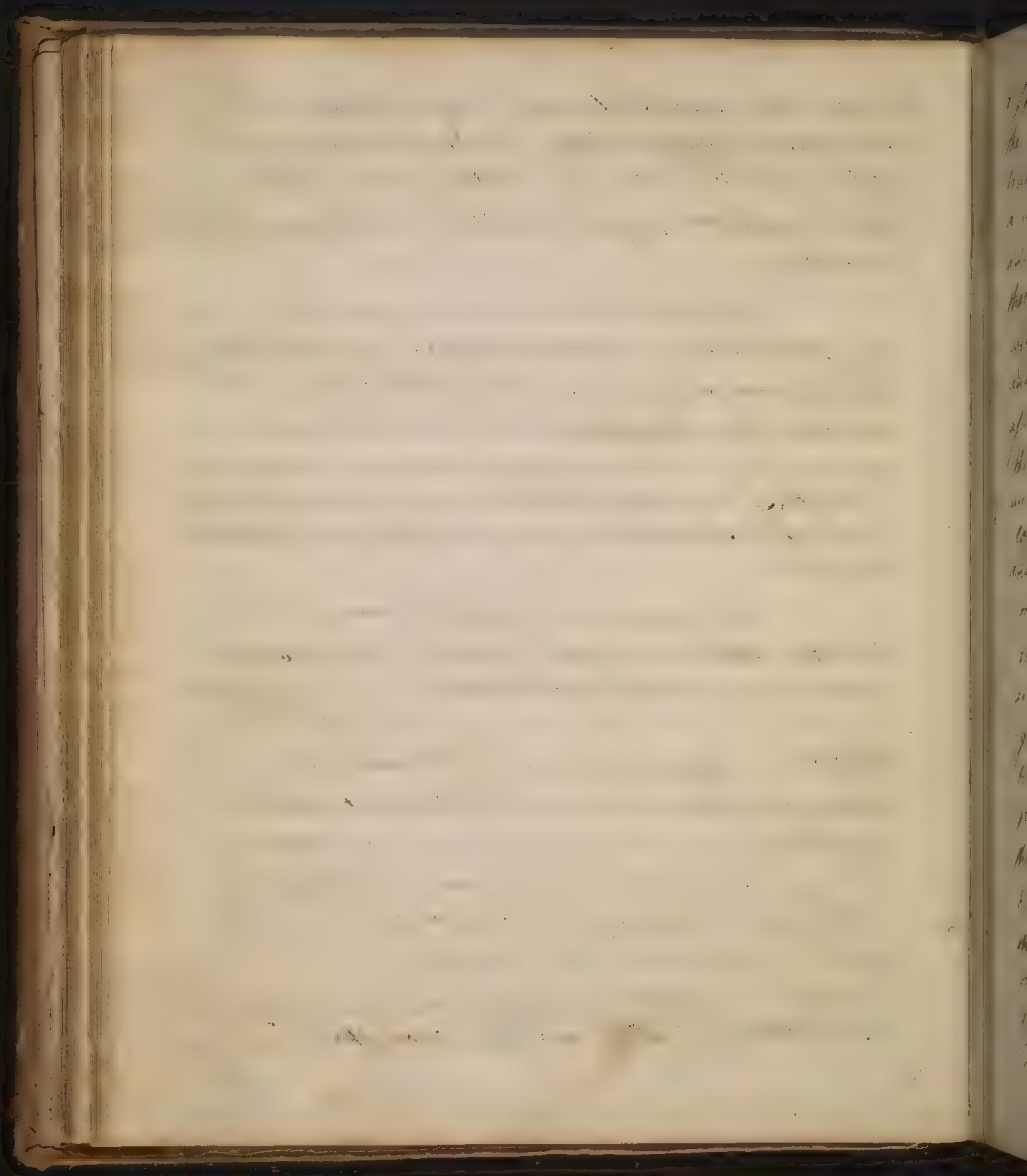


19.

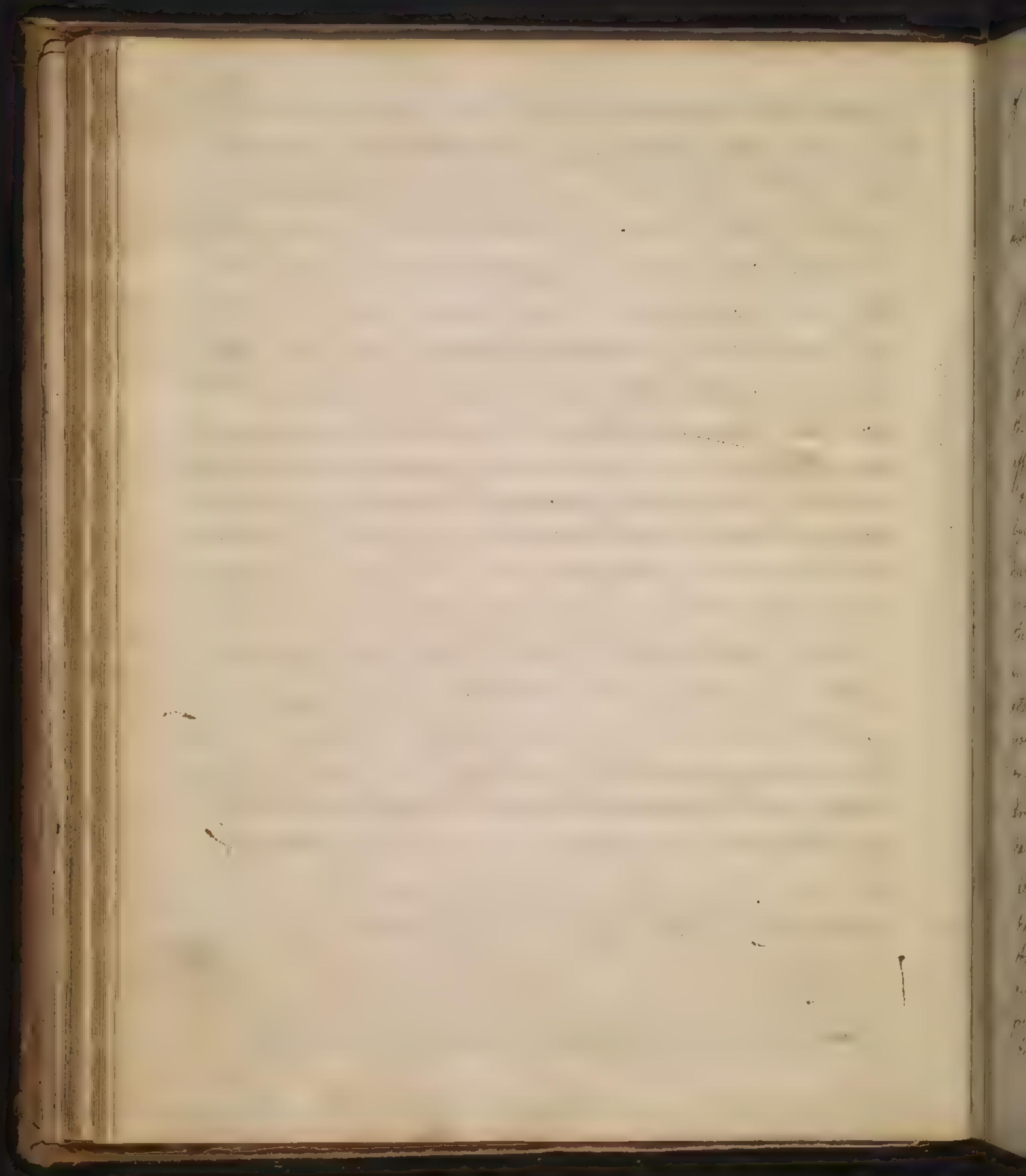
To know the merits and demerits of different plans, i. e. their advantages and disadvantages, and how far they may with safety be depended on; for whatever care we may take with regard to particulars, a great deal depends on the general plan we follow.

In my last Lecture I in some measure told you when the greatest room for improvement lay. I say, that at present we have a more useful and a better Theory, use it more cautiously, and constantly attend to Observation and experience. Our Theory is better, because our knowledge in Anatomy is more correct and complete; and our Chemistry is also more complete and systematic, and more applicable and useful.

The present age is jealous of Theory, and examines it to the bottom: hence greatly employed in collecting observations. Hence also the great compliment paid B. Verhaeve by Leuvenae, when he calls him the author of *Collective Physic*. Besides we are now better acquainted with the History of Nature, and more light is thrown on natural Philosophy. Thus our knowledge in general is much enlarged in comparison to what it formerly was, and that particularly with regard to disease; for here we have been of late taught a great deal by the Dissections of mortal bodies. Therefore I say that at present our Theory is on a better footing, yet at the same time allow that in many respects



respect it is imperfect - And I even esteem it one of  
the merits of the present age, that Physicians in general  
trust little to Theory, and never admit it unless proved as  
a matter of fact. Theory in weak minds is apt to be absurd  
and misapplied, so as to be of ill consequence; but I say  
that a man of judgement will always be able to use it  
with propriety and advantage, well knowing the nature  
and powers of the Instruments he has in his hands: and I  
affert that the more attention he spends in the study of it,  
the better he will be able to make a proper and advantageous  
use of it. But (as I said before) the present age is very pio-  
-rous of Theory, least it have not a sufficient foundation:  
and Physicians are, therefore, much inclined to make Experi-  
-ments to prove, or try, the truth of Theories; which I also  
recommen another article in the merits of the present age,  
as the consequence of it is to collect a number of facts to  
gather, which is surely advantageous, and tends much  
to increase our knowledge. In this, indeed, the greatest  
part of Dr Boerhaave's merit consists (according to  
the Characters given of him by an excellent Author); for  
he was very diligent in collecting facts, &c. Now 'tay  
that who else is thus diligent in the collection of facts  
necessarily uses Theory in comparing, arranging, and  
forming more general facts from them. This even  
Sydenham did, and all the most eminent Practitioners

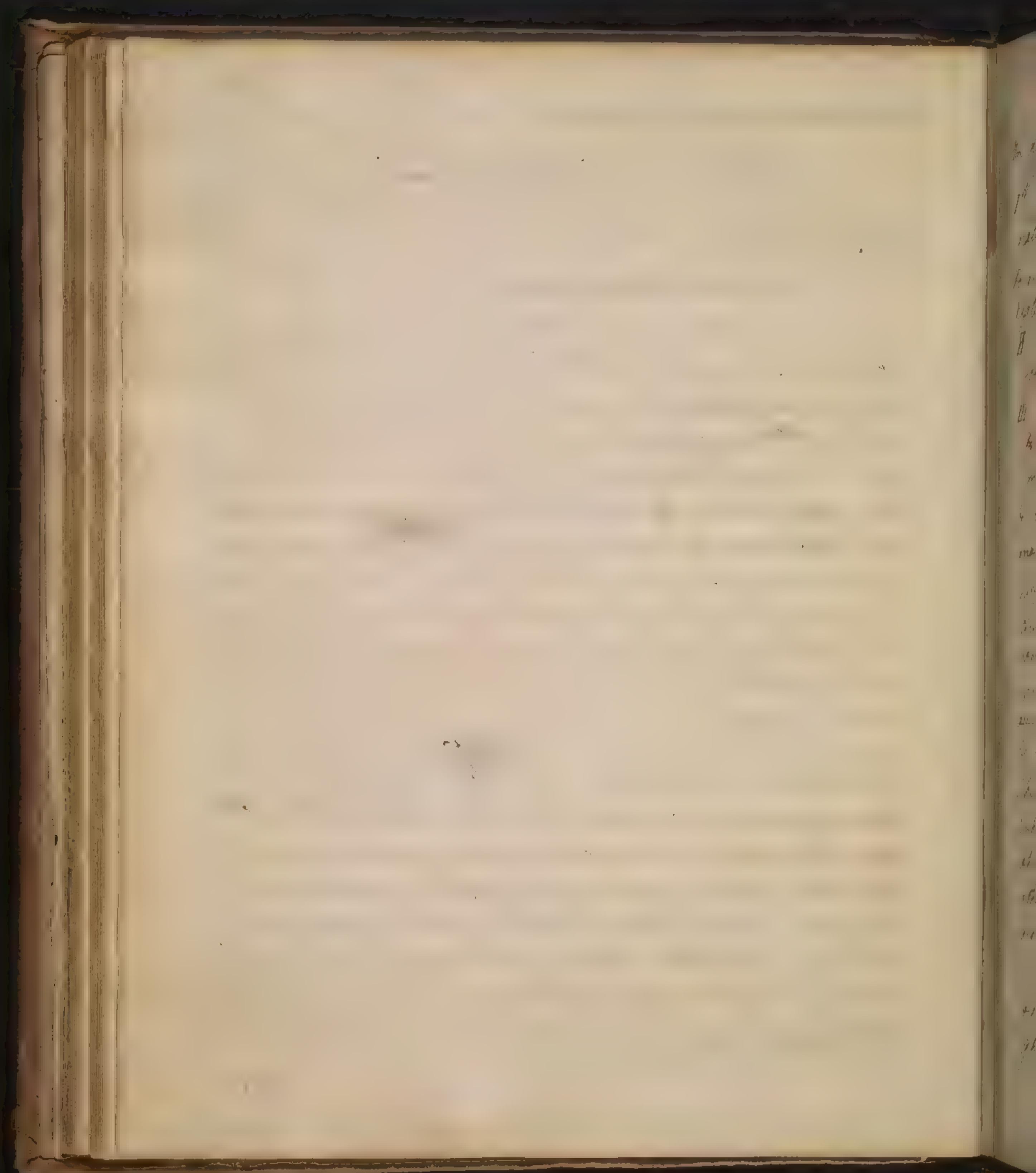


of every age have done the same.

However, in the plan that we are to pursue there is a great deal that is more purely theoretical, which, therefore, might give offence to some.

The first question that occurs, in the cultivation of Physic, is, whether it is to be followed on a Dogmatic or Empirical plan? I must first observe to you, that all the schools are on a Dogmatic plan, as it were, through necessity; while the Practitioners of physic profess, at least, Empiricism, and affect to disregard Theory. By this they give students a prejudice against what they are obliged to listen upon; which, by the bye, I look upon to be amazingly ill-judged, and of the most hurtful consequence; for by neglecting theory they must neglect many important facts. (I cannot at present pretend to discuss this question at full length, but must suppose it done already in the institution, which I take it for granted you have all attended); if any of you have not yet studied the subject, I advise you that it is well worth your while: in this place I shall only observe upon the whole, that both Dogmatism and Empiricism have their advantages and disadvantages. Both have their defects, and are each in many respects imperfect; for there are many false Facts related by authors as there have been false Theories invented - and moreover I assert, that every practitioner, even he who professes himself most averse to Dogmatism, uses theory, and that too freely very frequently, and with the worst and most pernicious consequences on account of the general prejudices -

But



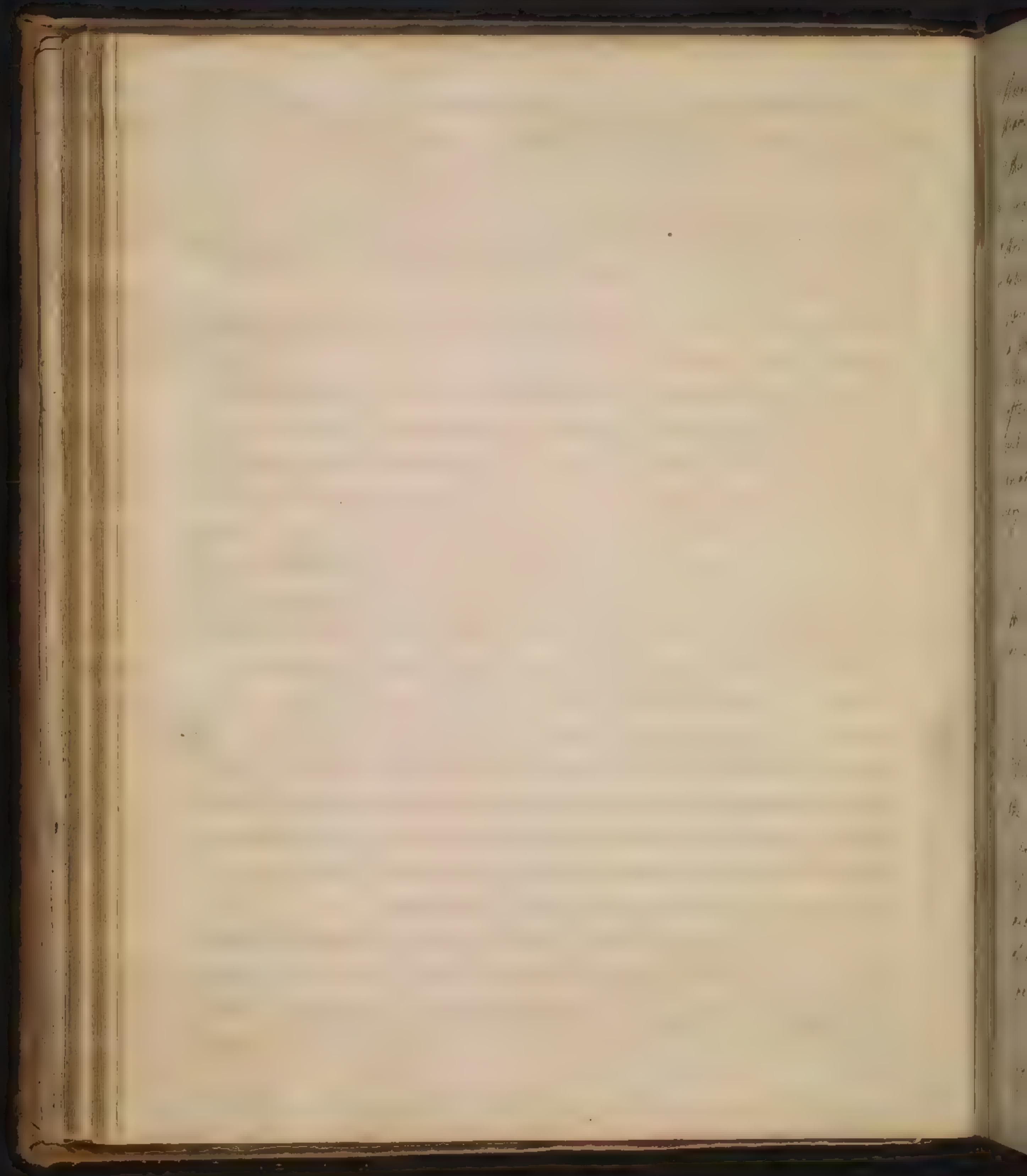
But I adhere more strictly to the point in hand -  
In defence of a Dogmatical System I use these arguments:

I<sup>st</sup> I say that reasoning in Physic is unavoidable, from the natural propensity of the Human mind, and therefore, in order to render it safe, it is necessary to cultivate it in its fullest extent.

II. a Dogmatical Plan has been proved best for collecting and pointing out Facts.

III. No Imperie system has lasted long: Mankind naturally tend to Theory, & explain every thing as Cause and effect (Sceptics may show the fallacy, but never contradict this propensity & reasoning - The only remedy is to prove the reasoning, and make them better Trasformers, by engaging them in the study of the subject in its full extent) By paying much attention to a particular subject, and dissecting ones subject especially & it, that a man comes to reason more justly, and to have a more sound and comprehensive knowledge of it, so as to enable him to judge more accurately in matters relating to it than others; for no man will be cautious in reasoning, who has not been much experienced. Thus a Physician will often reason concerning matters in Law, but in so doing he only gives the Lawyer an opportunity to smile at his weakness and the shallowness of his judgement: And on the other hand, I know that a Lawyer will often make himself ridiculous, by attempting to reason in Physic.

In short, I really never yet saw a practitioner that did not use Theory; for at the same time that they are enraging against it, and say "Paracelius was a fool, Van Helmont

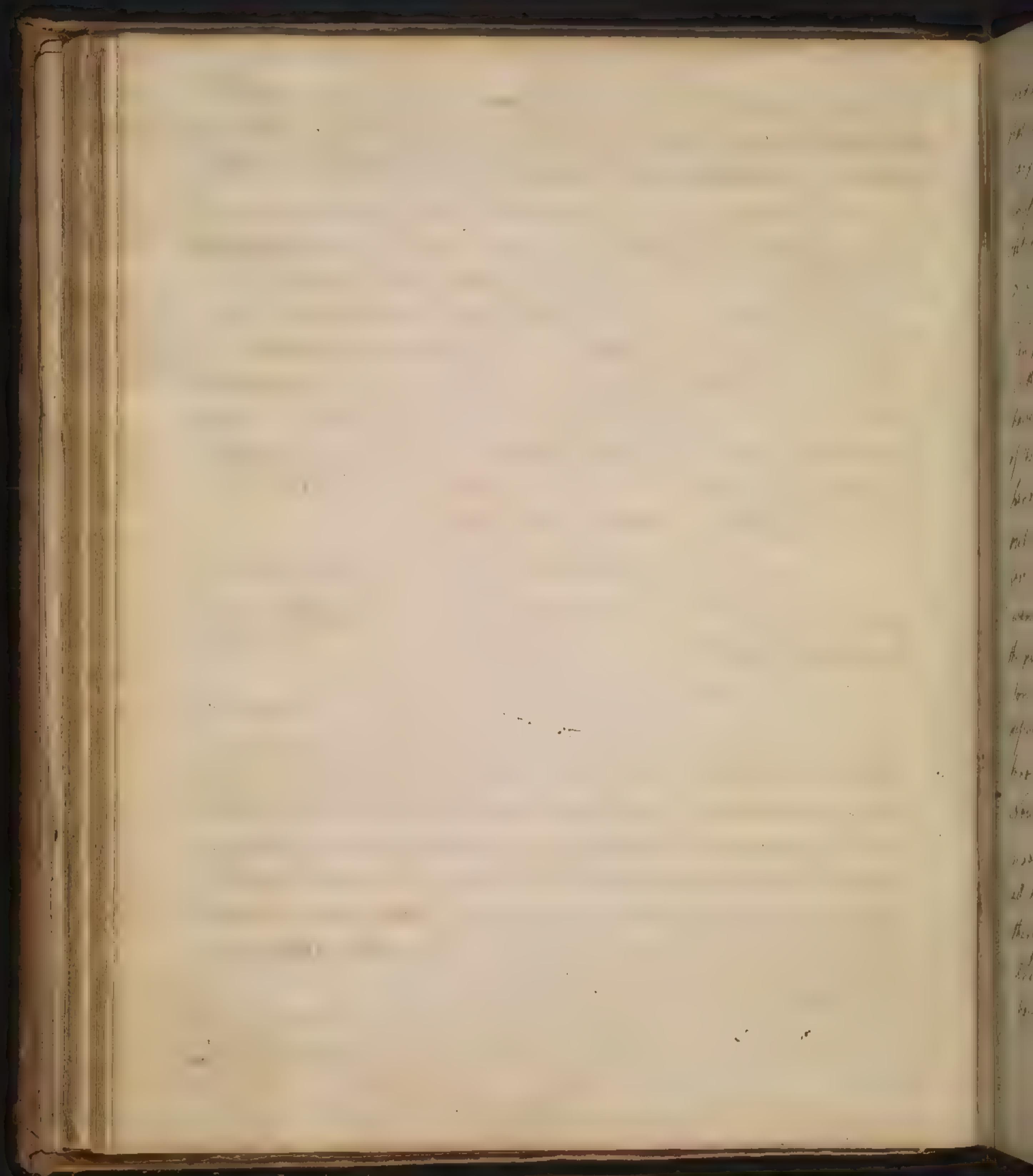


"Belmont a madman, and even Boerhaave, among the rest, had his  
 "Wishbones" - Yet in their own practice you will hear them say,  
 "this man is Plethora, and therefore must be bled" - If to  
 "much of that is foul, and he should have a vomit & clean it -  
 "And a third has his blood full of Atrimony, and therefore ought  
 "to be purged" - Now I say this is theory & all intents and pur-  
 -sues, and that too of a wrong kind; for I have frequently seen  
 a fat man be deemed plethoric, and for that reason bled,  
 when it was evident the judgement was erroneous - I have also  
 often seen a man get a vomit when his stomach was not foul,  
 but laboured under sympathetic affection - And a purge adjudged  
 another, with a vomit & a sweat Atrimony, when he had even a  
 very slight Cutaneous Eruption only; &c.

Therefore I repeat the propensity to reasoning un-  
 -voidable in men; and the only remedy for it is to engage men in  
 the diligent study of it in its full extent, so as that they may  
 use it with propriety -

By a Dogmatic plan only it is that we can expect to  
 enlarge our collection of facts, so as to form a system -  
 It will be acknowledged that many of our facts in Physic, such as  
 the cure of diseases by particular remedies, &c. have been dis-  
 -covered by chance, and not by experiments made in consequence  
 of reasoning a priori; but then it has been the Dogmatists  
 alone that have collected and preserved these facts - This part  
 of my argument is known to be true - But the latter part,  
 perhaps, does not appear so evident -

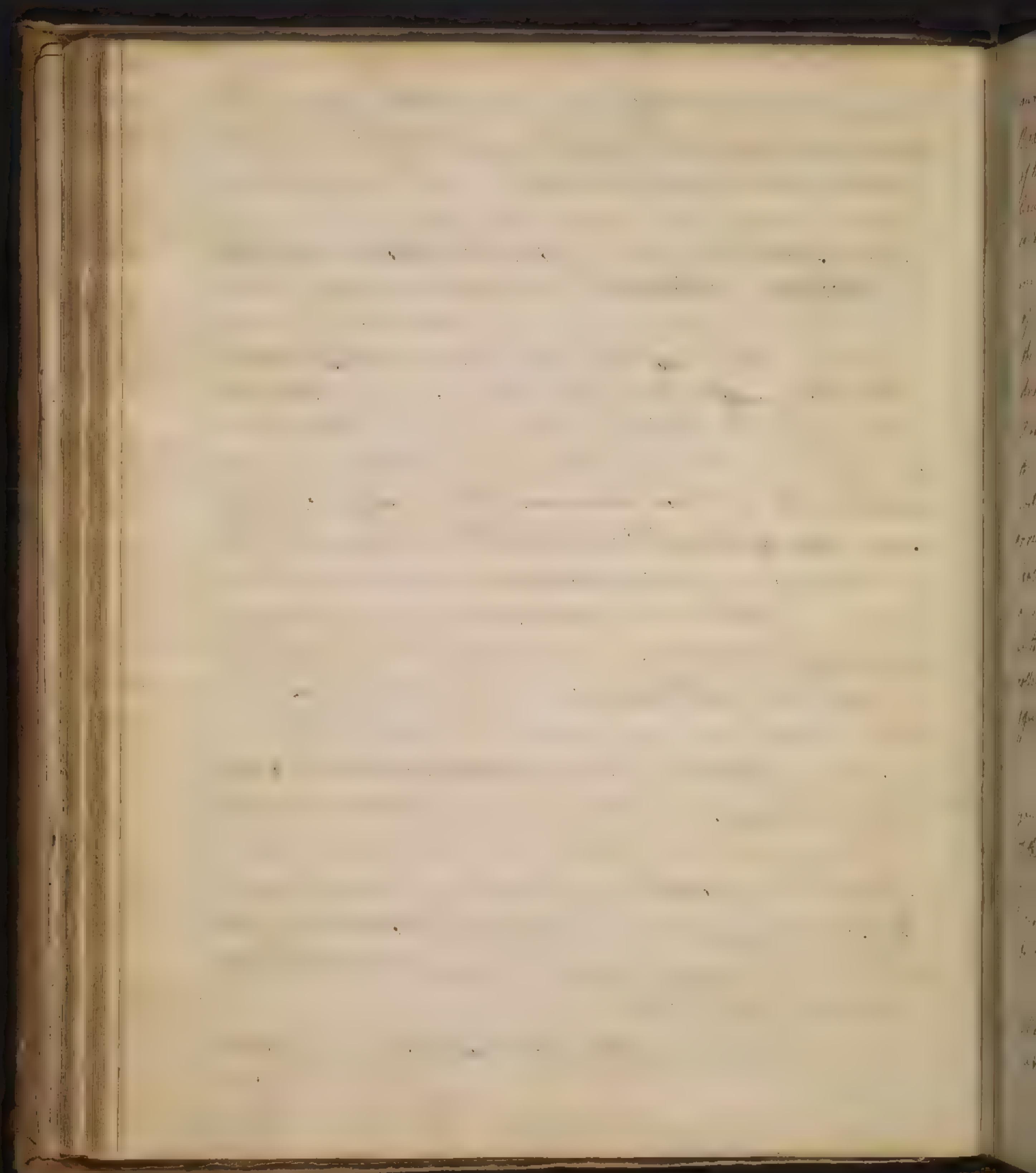
I said further that a Dogmatic plan is necessary  
 to the enlargement of our knowledge in physic, and curing



241.

increasing the Collection of Facts - To make this appear, I say,  
that in order to render the Collection of facts useful, it is neces-  
sary they should be arranged properly - all the particular  
things be arranged into Genera and Species, as in every other  
object of the kind - In short all Practitioners agree that  
a Nosologia Methodica is absolutely necessary to the  
Cultivation of an Empiric plan, and this according was at  
tempted, as I know about 40 years ago by W<sup>r</sup> Swanger, but  
with what indifferent success every one of you must see who  
have perused his work, and I have any considerable knowledge  
of the subject - However I shall soon put something into your  
hands, that will show how imperfectly the design of making  
out a Nosologia methodica has hitherto been executed - There-  
fore the chief requisite to an Empiric plan has as yet been  
wanting - Further I say that even this does not at all answer  
the purpose of directing our practice, which is a certain hypoth-  
esis that the particulars are not properly arranged, or  
defined - No one genus can be accurately defined, but from a  
knowledge of all the species, or particulars of which it consists.  
Now, as it appears that the Nosologia methodica cannot be  
made perfect till the particulars of which it consists are  
all known and collected, our attempts in System must  
therefore at present be to enlarge our Collection of facts.  
And now, by way of digression, I say a little of the method  
how this is to be done.

I imagine that in the Collection of useful facts  
ours



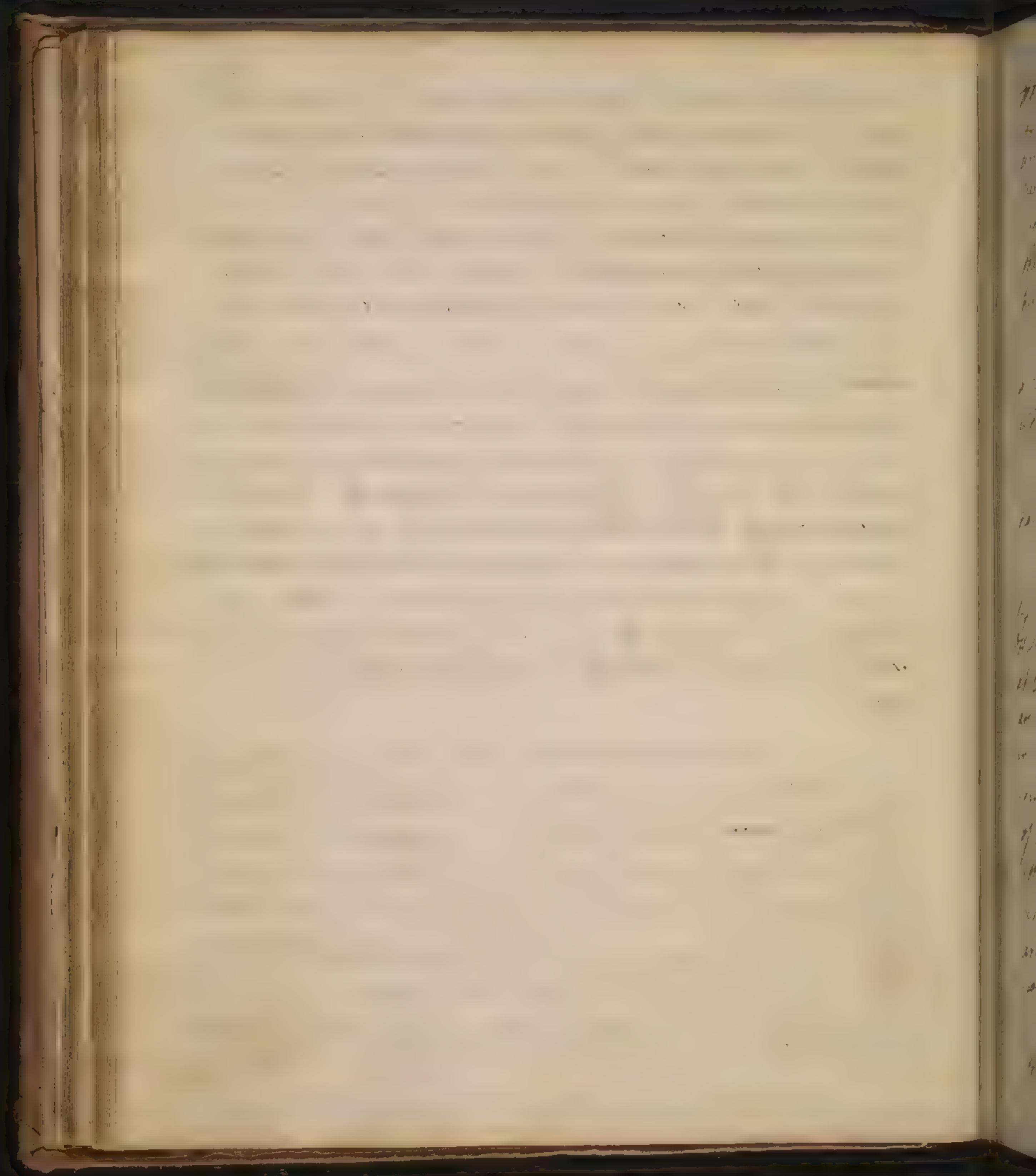
25

our chief and greatest source is from the Dissection of morbid Bodies (Savages, indeed, profess not to admit or make use of this in their distinctions, i.e. the internal seat, or proximate cause of disease; but yet he tacitly does it, and indeed is under a sanctity of doing it); and this too is the most accurate method by which we can collect our facts - Now this Dissection of morbid bodies cannot be done with a previous knowledge of the healthful state, nor can this be done without the study of Anatomy, and the use of the parts, which includes Physiology, &c. I have therefore now shewn that our progress in System depends upon the study of particulars, and that this cannot be done to advantage without the knowledge of anatomy, Physiology, &c. In short, it appears upon the Whole, that at present we can have no other foundation for the improvement of our knowledge and attempting a system in physic, than the study of a Dogmatic plan; for without it we cannot with any accuracy ascertain the facts we would collect with regard to Pathology, or application of the rules, and their effects -

For certain reasons, which I do not mean to trouble you with, we are not to begin our important business as yet. I therefore chosen to spend the time in engaging you in the study of the proper plan for the cultivation of Physic; and that more especially, as from certain Circumstances, you are liable in this respect to be ill wrong -

The Theory of Physic is a great and difficult work: Many youths have lost greater, other industry, to comprehend it; and (what is more unhappy) others have lost time and opportunity,

Thou



26.

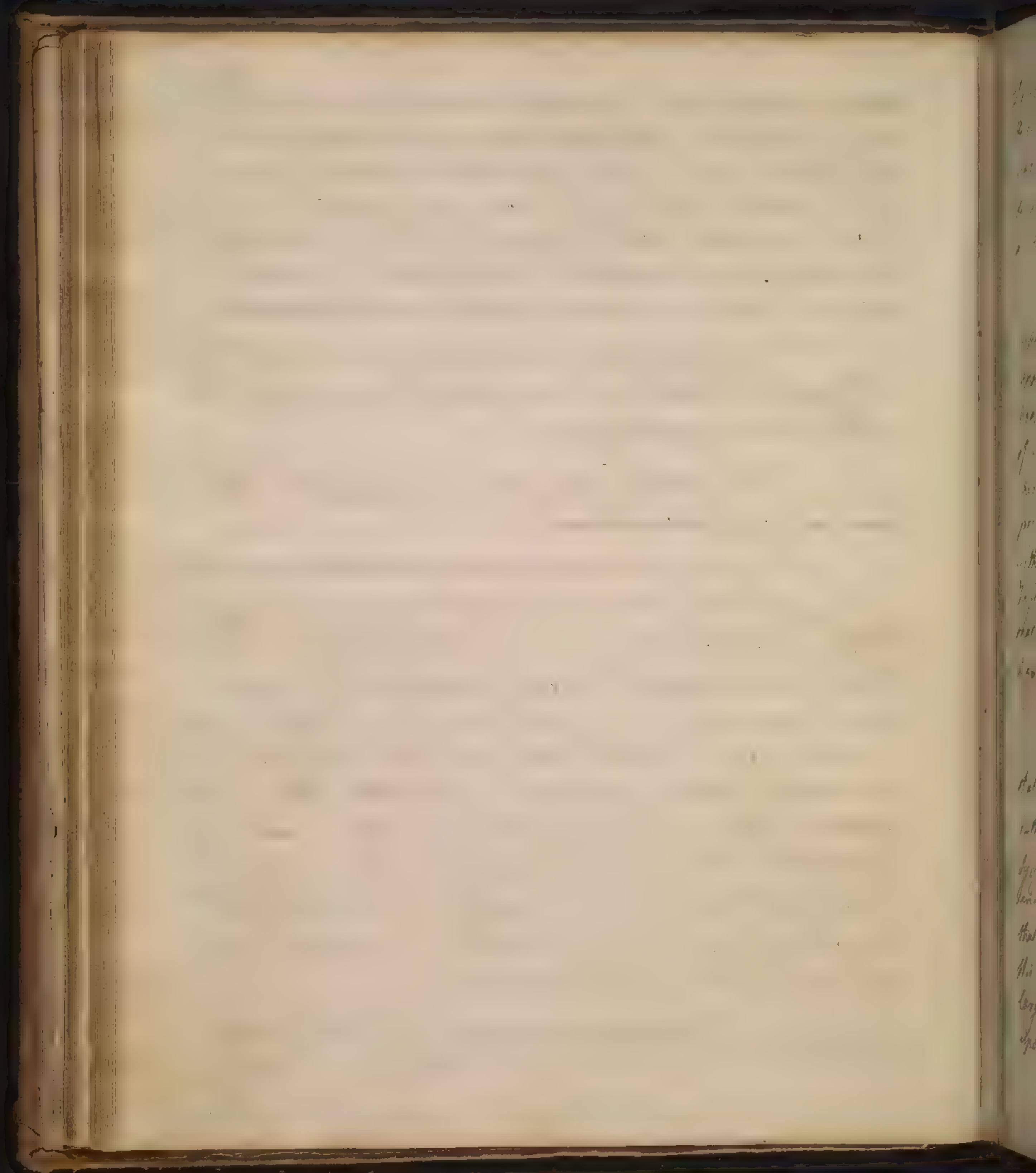
though blessed with capacity: Therefore we shall give an  
- to such all the advantages that can be obtained from  
an empirical plan. Many practitioners who themselves have  
been incapable of Dogmatism, or have neglected it, endeav-  
-our to prejudice others against it, by their advice, from  
the same principle that the Fox that had by chance lost  
his tail, would persuade the rest to cut off theirs also.

For the sake of such students as are capable of  
a Dogmatic Plan, I give, in defence of it, three arguments  
which I here propose to you.

First, that Dogmatism is unavoidable - This I  
have already fully discussed -

Secondly, that all our valuable Books were wrote  
by Dogmatists - and Yallow said that in physic, as in natural  
History, in order to a system, it is necessary to pursue the study  
at large - and Moreover I add, that though Hypotheses  
are not generally to be admitted willingly, yet they are useful  
in science; for it is to them that we owe the most of the Expe-  
-riments and facts in physic and Philosophy - The system  
of the Universe by Sir Isaac Newton, which is not so well  
established by Experiments and Observations, was first  
put on foot by preconceived hypotheses, &c - Solitary facts  
are often useless, but when collected and compared by rea-  
-soning, are of the utmost importance -

Further, every one must allow that it is necessary  
to take in remote Causes, along with other circumstances, in  
Dif

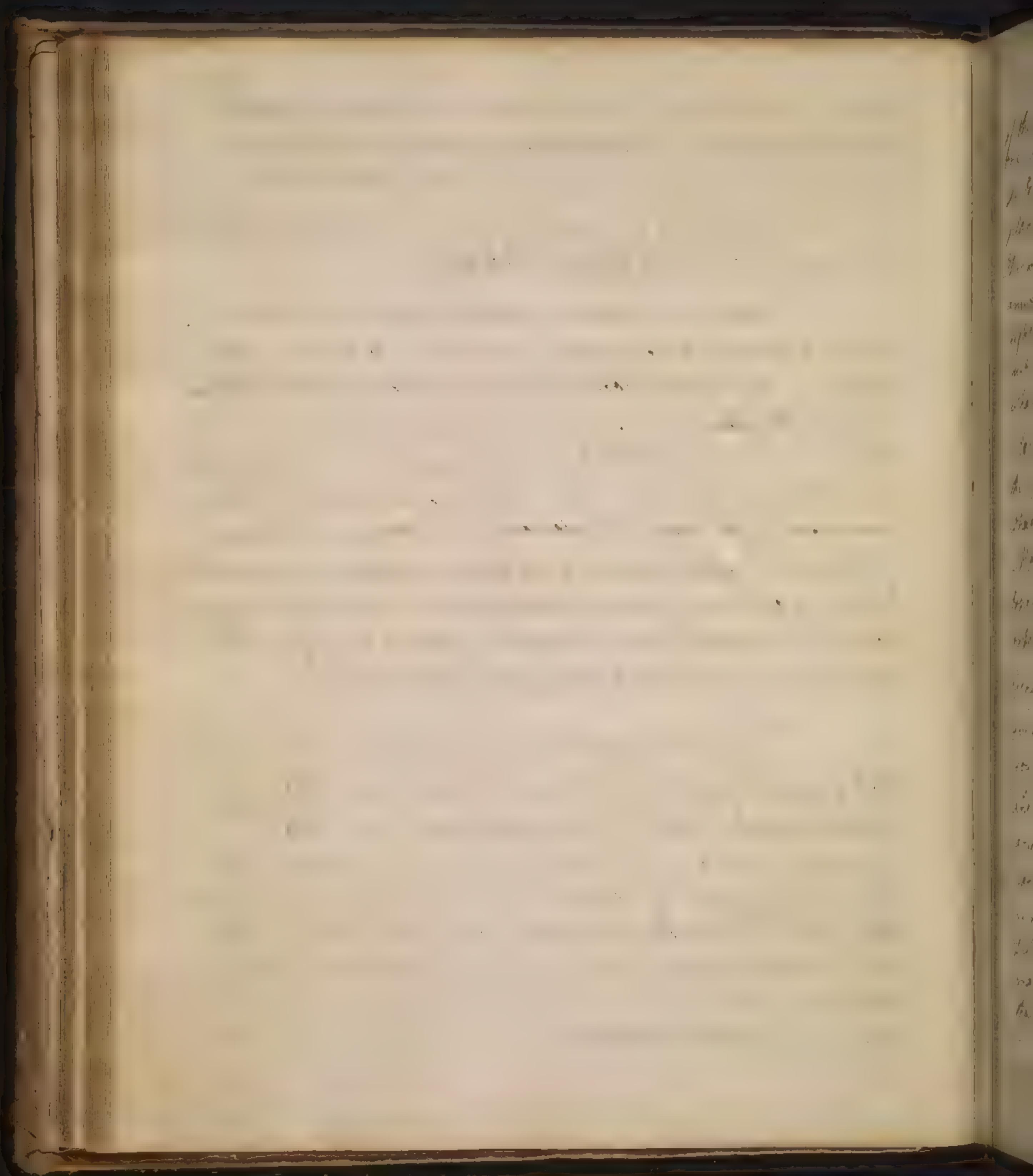


27.

Discriminating diseases - Now a Dogmatical system is absolutely  
to enable us to determine the operation of these (as they are very  
various, and as they are varied by the state of the body), so as  
to ascertain them with any degree of accuracy; i.e. we must have  
a knowledge of Physiology and Pathology -

Also, I say that a dogmatical system is likewise re-  
sponsible to the ascertaining facts with regard to the remedies  
applied - The dispute concerning the peruvian Bark, the great  
boast of the Empiric plan, viz., with regard to the proper methods  
of using it, could be settled by the Dogmatists only; at least, I shall  
hereafter show you that the matter has been brought to any  
precision by the Dogmatical plan only; and the same is the case  
with regard to other remedies, our facts in physic being rather  
Inferences of Reason than Objects of sense - In short, it appears  
that it is impossible for an Empiric system to be perfect till a  
Dogmatical is also; and that they necessarily go hand in hand -

My third argument for Dogmatism depends on this,  
that any attempt to teach Physic on an Empiric plan has  
hitherto proved fruitless, nay often pernicious - What Dr  
Sydenham has done in physic may seem an exception to this,  
and indeed so far as he has done it, is commendable; but I deny  
that what Dr Sydenham has done was on this Empiric plan -  
His *Proscriptus Integri* indeed appears so, but look into his  
large work, and you will see that his collection of facts is  
upon a Dogmatical plan -

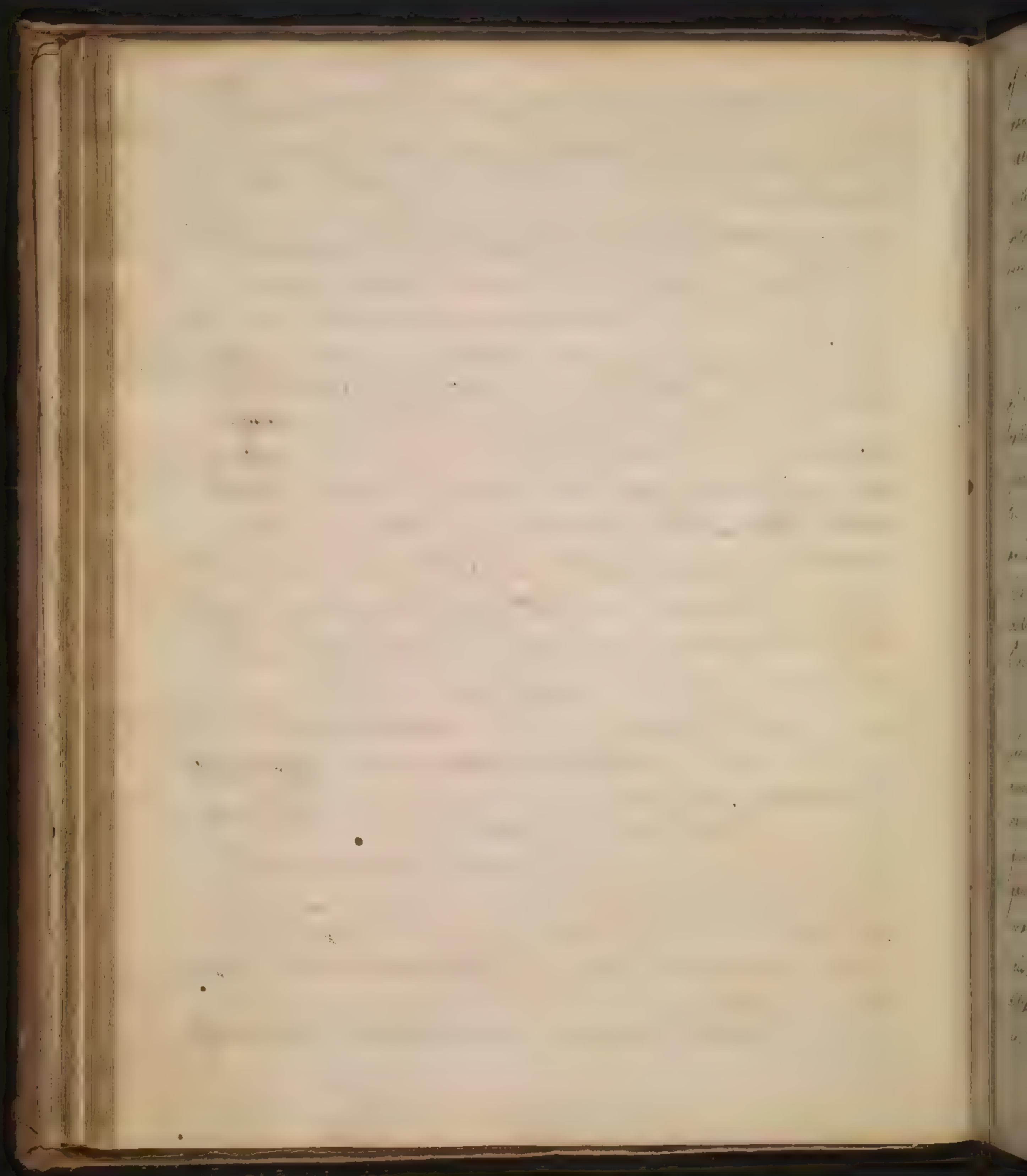


28.

The Works of Shaw of England, and M. Lichtenau are of the Empiric kind. The former is now much neglected by every one, and does not, therefore, merit our more particular notice; as the latter, he says in the beginning, when speaking of the plan of it, that his design is to collect the facts of Physic - It is indeed an attempt to give an Empiric system - but does not answer the intention - I shall here only consider the work in the light of a System of Physic, and as designed to practice - and as such it is in the highest degree imperfect (i.e. for example, what he says under the title of his "Affection Hypothecum - diaque" of the French Edition): He has no where ascertained the genus of the Disease - He has indeed frequently attempted what is called: in his "Inaugural Dissertation, an Historia Morbi," i.e. an indigested ~~various~~ of symptoms unnumerated together, but has never once attempted to reduce them to any order, or regularity of succession - He has often formed a genus from a single symptom: hence in his history of it he gives symptoms of many different diseases, examples of which you will find in the Dolores, Cachexia, Alous asthicta, &c. and also has frequently in the end given us the morbid appearances he has found from dissection, which he was much conser- fant and very experienced. But this part of his work offus us no more than the rest; for as he does not connect his Dissections with any particular concourse of symptoms, nor make use of them towards investigating proximate causes, they are useless -

Next he gives us a most undetermined method

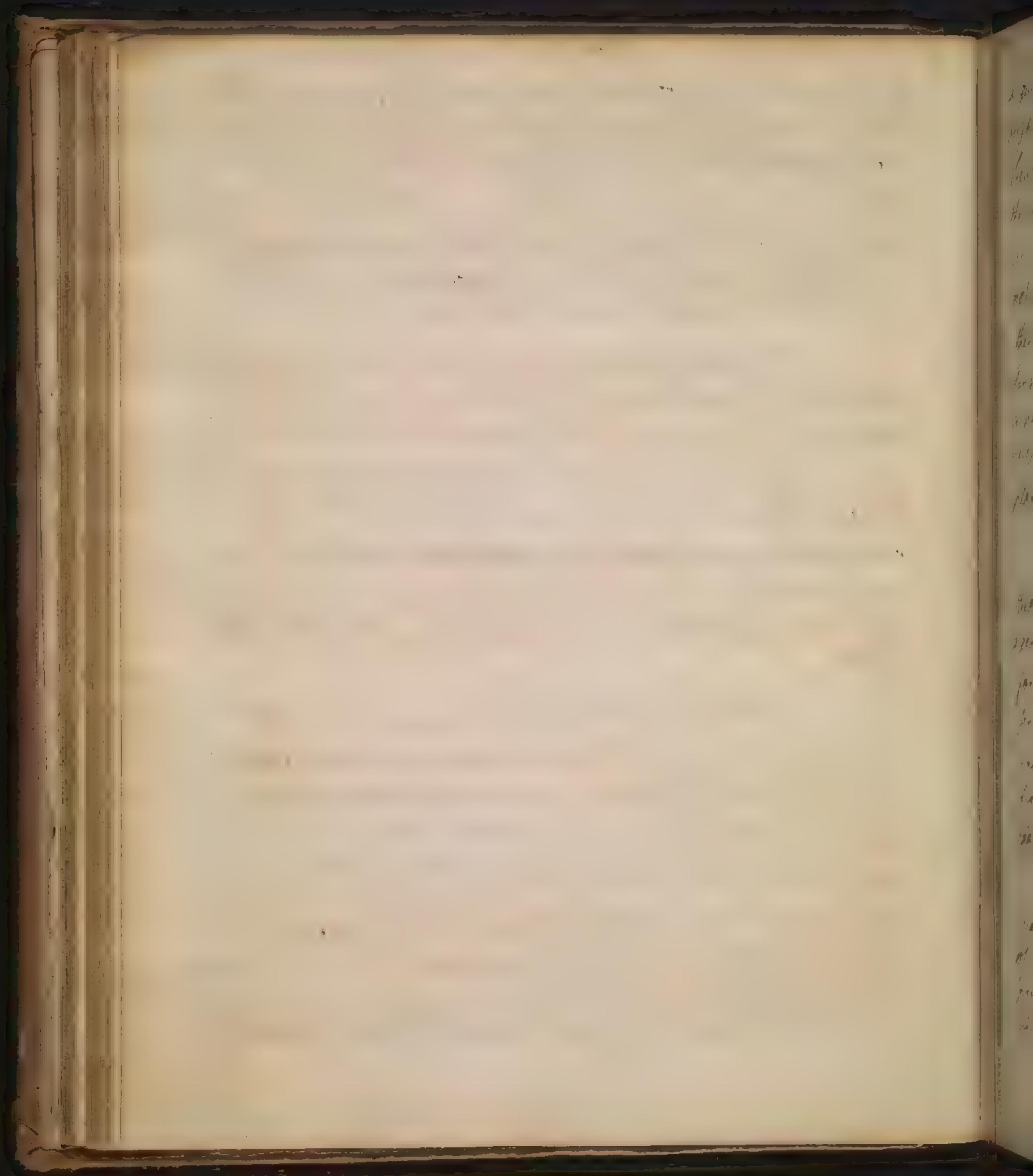
of



of Cure, viz, a list of remedies that were ever (or perhaps at present in the present practice of France are) used in every species of the disease - In his introduction to the Cure of the asthma, which may apply to all the rest - Such practice is but groping in the dark, which is indeed putting our practice upon a very indifferent footing, where our Prescriptions are so undetermined, and we proceed so much at random -

Next (in page 878 of his Latin work) see the list of remedies that is drawn up for the cure. This is what he calls knowing Practice - It is just such as every Apothecary's apprentice may know - But indeed I would not you an apprentice of twelve months standing, who would give the remedies such an injudicious arrangement - Mark how they stand "Whey, Calpis broth, &c" - Indeed M. Leintaud himself marks what is the defect here, viz, that we want the knowledge of the proximate causes -

I could give you many more examples in M<sup>r</sup> Leintaud's work - but I shall take notice of one more article only, viz, a method of Cure - For the most part, when I see a method of Cure laid down, I can, without seeing any further, judge what disease it is for - But here it will be found otherwise - I shall read you over a clause, and then, though many of you have applied for years to the study of medicine, and probably think yourselves pretty well acquainted with disease, I doubt very much if you can guess what the disease is. (See the Example in Vertigo) This, according to M. Leintaud, is

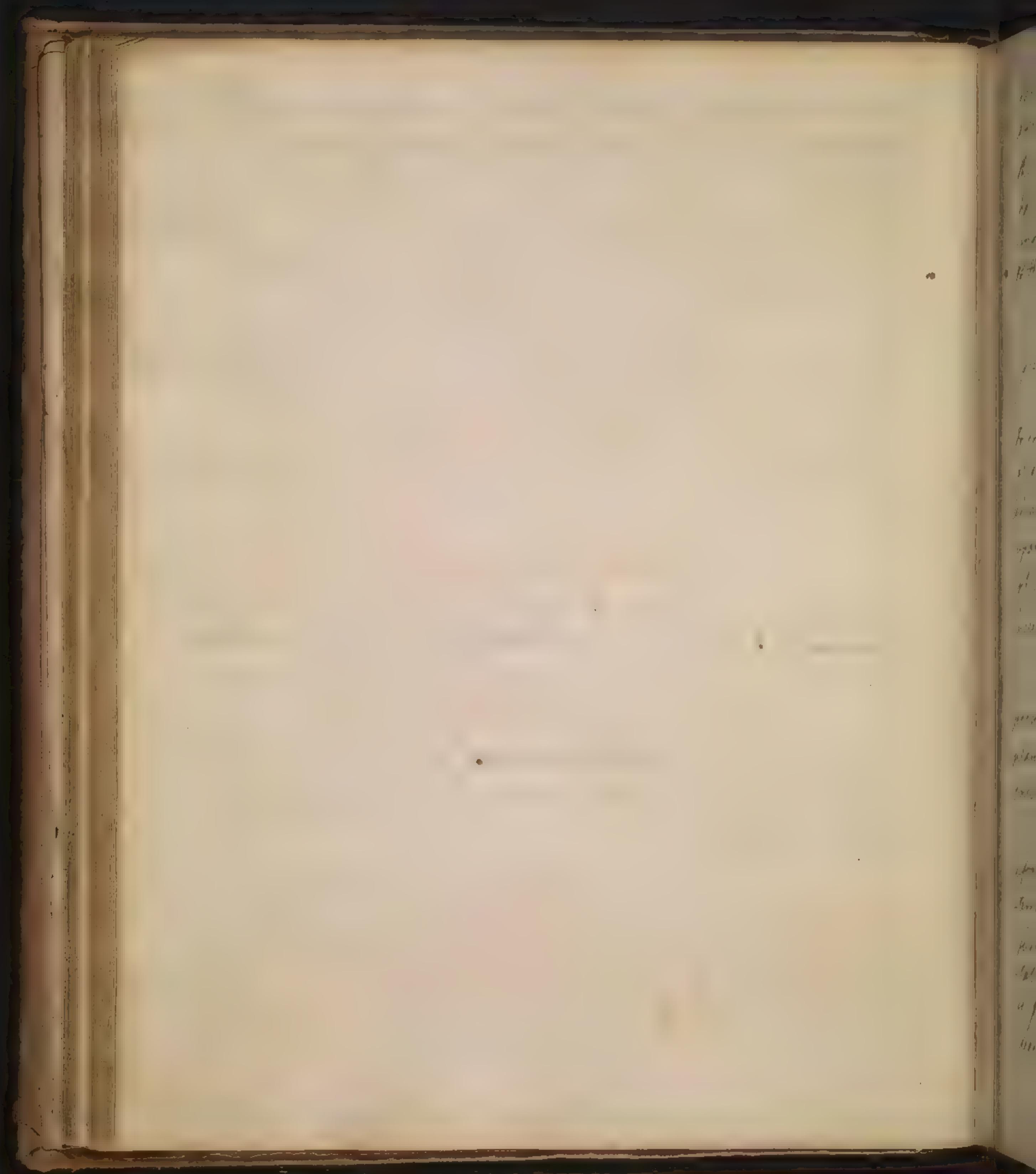


30.

a guide to practice. Whether will you say that all these remedies ought ever to be used together? But I add that though Mr. Sientaus in his Synopsis Medicamentorum afterwards arranges the remedies according to the Indications, or such principles as are laid down by Dogmatist, yet even now it does not answer the purpose of directing our practice. Such, then, is the result of an attempt to a system made on an Empiric plan! And I really believe that a system on such a plan, at present, impossible; and therefore it is absolutely necessary that we desert this, and attempt it on a Dogmatic plan.

I am persuaded that the farther you advance in your studies, you will more plainly see the propriety of studying a general plan, for the Cultivation of physick, and will therefore the better excuse my insisting so much upon it at present. I think it necessary to obviate an opinion generally prevailing "that all theories are nonsense." To the fifth argument I offered to that end, I shall now only add an illustration.

Some time ago there was a great dispute pro-  
-vailed in France, concerning the superior excellence of ancient or modern science. Some choos'd to give the preference to the former. But M. Fontanelle adornted the  
use of the moderns, and, among other things, said, that they  
had



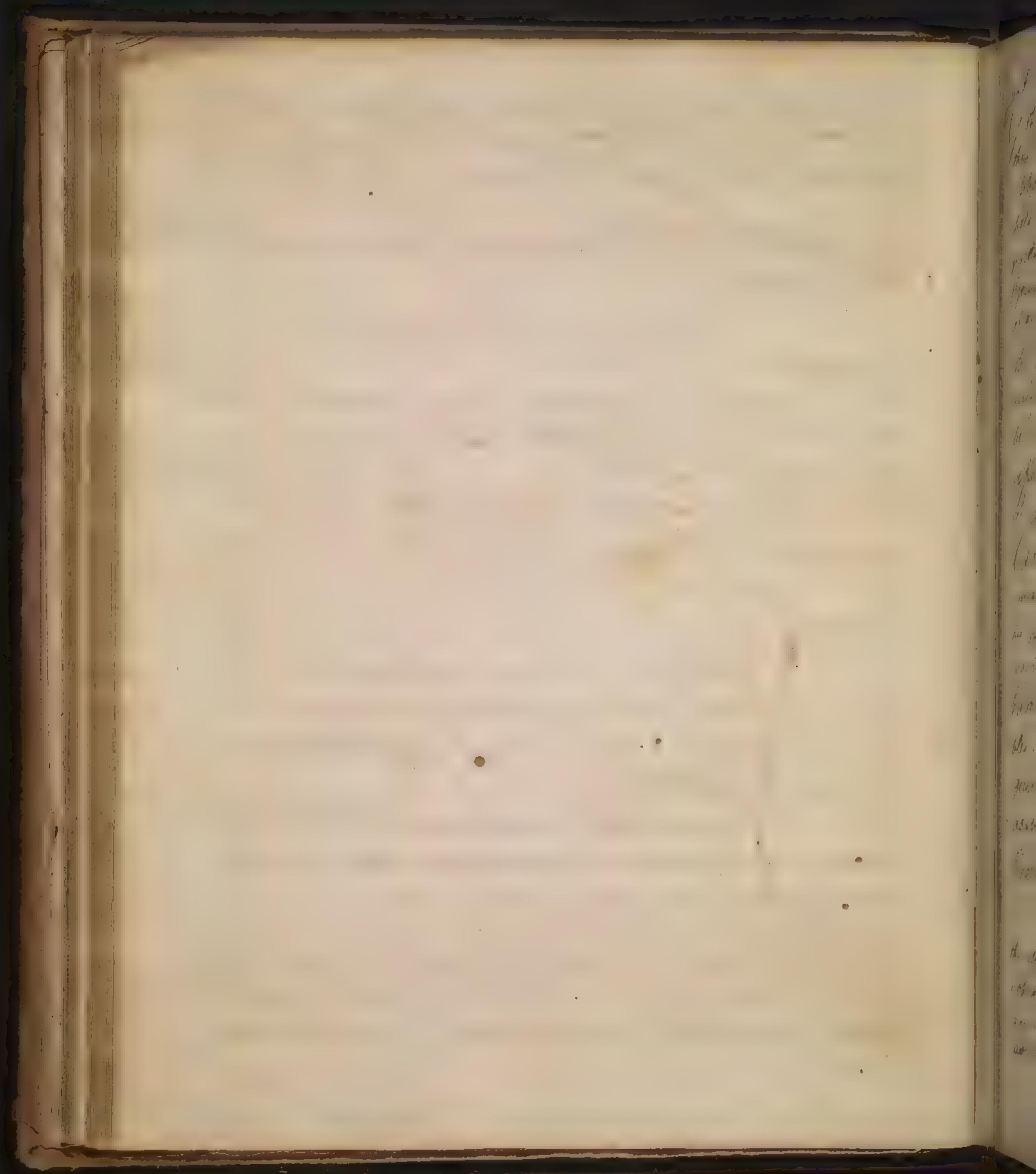
had this advantage over the antients, that the more Opinions  
and theories they had already rejected, the nearer they were to  
the truth; for the greater the number of false Theories that  
have been rejected before our time, the fewer we have remain-  
ing, till we reject; and consequently the nearer we are to  
the truth.

I have nothing to add to the second ar-  
gument -

But as to the third, I observe that I was obliged  
to enter on a very disagreeable Task, of criticising the work  
of an author - I shall decline saying any thing more on this head  
at present, but shall take occasion hereafter, while we are  
upon particulars, to make such observations on the works  
of M. Lichtenau and others of the same cast, as I shall find  
necessary.

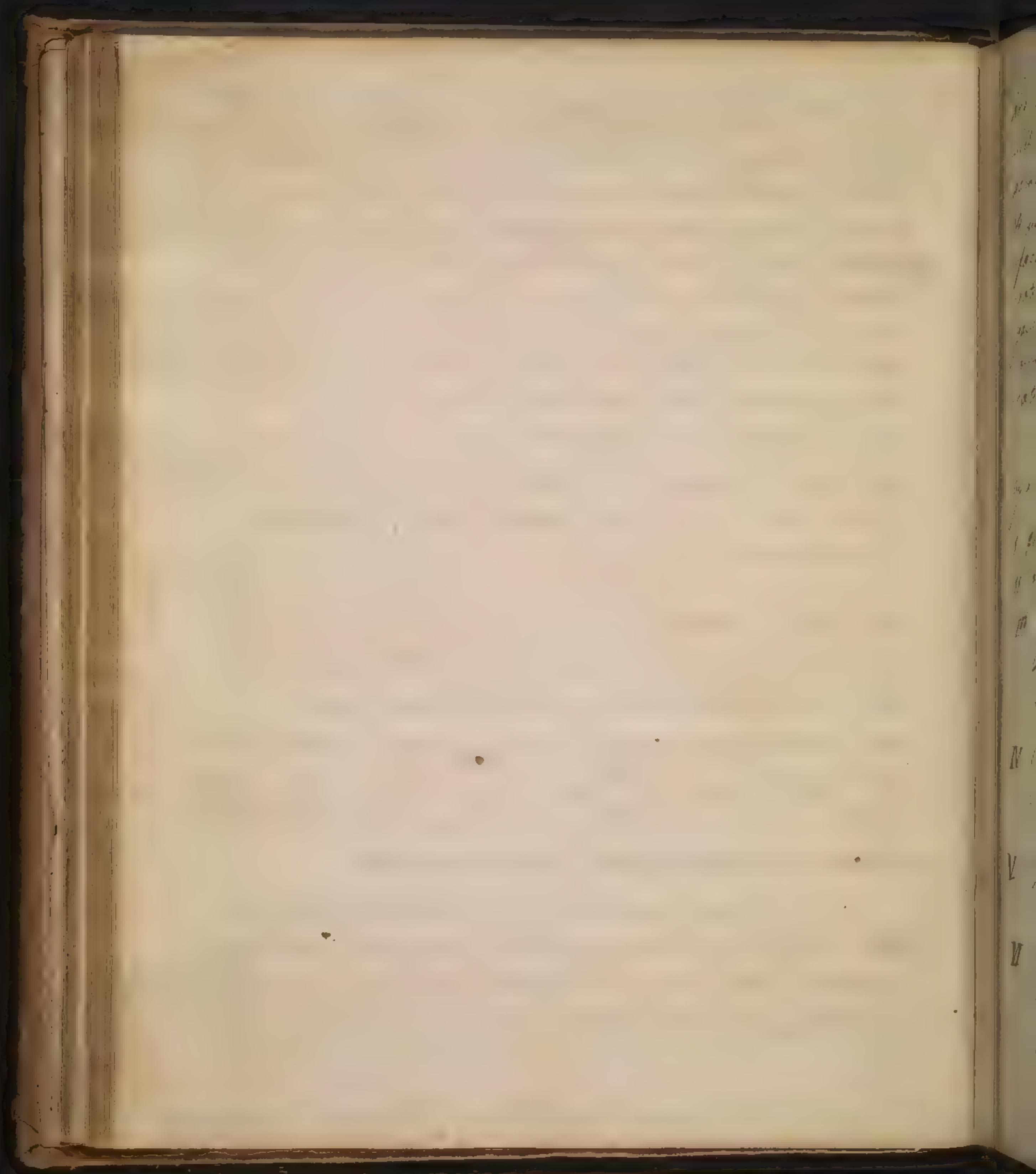
I hope you are all now well convinced of the  
propriety of pursuing your studies on a Dogmatical  
plan; and therefore, with respect to it, shall take notice of  
only one thing further -

It is generally said, that however Physicians may  
differ from one another in the particular Opinions or Sys-  
tems of physic which they profess, yet their practice is  
just the same, and they all agree in one general ef-  
tablished method - In the first place I say the fact  
is false; for though good nature and their regard to  
decease may always give Harmony in Consultations,  
yet



yet I insist that whenever Physicians differ in their Theory, (if they are not under control, left at liberty to do as they please) they will also differ in Practice. Formerly, indeed, all the practitioners of this place were of the school of Boerhaave, and held his Theories, for which I found them for the most part pretty uniform in their practice, being all directed by the same Opinions in theory; whilst a few remaining who were incapable of any Theory, endeavoured, as well as they could, to imitate the fashion established by others. I say, then, that in fact every man who has a particular Theory, will, if by himself, be swayed by it. Accordingly we find that the practice of different Sects is different; for every notable Physician will see the difference between Gallenists, Chemists, and Cartesians. No one can think with horror of the physician mentioned by Leontine, who according to Theory bled his patient 100 times in a year, and so killed him; never suspecting he was doing amiss. Or, without ridicule, of Van Helmont's death, who from theory refused to be bled in a clarity, suspecting to cure himself by a little sanguis Thiri. But I need your time in proving that nobody doubts. I will only observe further that the established Practice has been laid down by Dogmatists.

I shall suppose that you are content to follow me in the study of physick upon dogmatical principles; but I must not omit to warn you that our Theories in the present state are liable to imperfections and fallacy. I would therefore advise that you be particularly cautious in receiving them: and



and being aware of the fallacy & which they are liable, you  
will examine them with the most accurate Scrutiny, and  
admit none that are not clear and plain - I shall endeavour  
to give you no conclusions that are contradicted by known  
facts - at the same time I shall give such an enumera-  
tion of facts, that I should be ashamed if any Course  
gave a better than ours; and then I shall arrange and  
order it a Dogmatic plan, so as to assist you in the appli-  
cation of them -

Take it for granted that you know what I mean  
by a Dogmatic plan - It supposes a knowledge

I. Of all the powers acting on the Body -

II. Of the Anatomy of the Body -

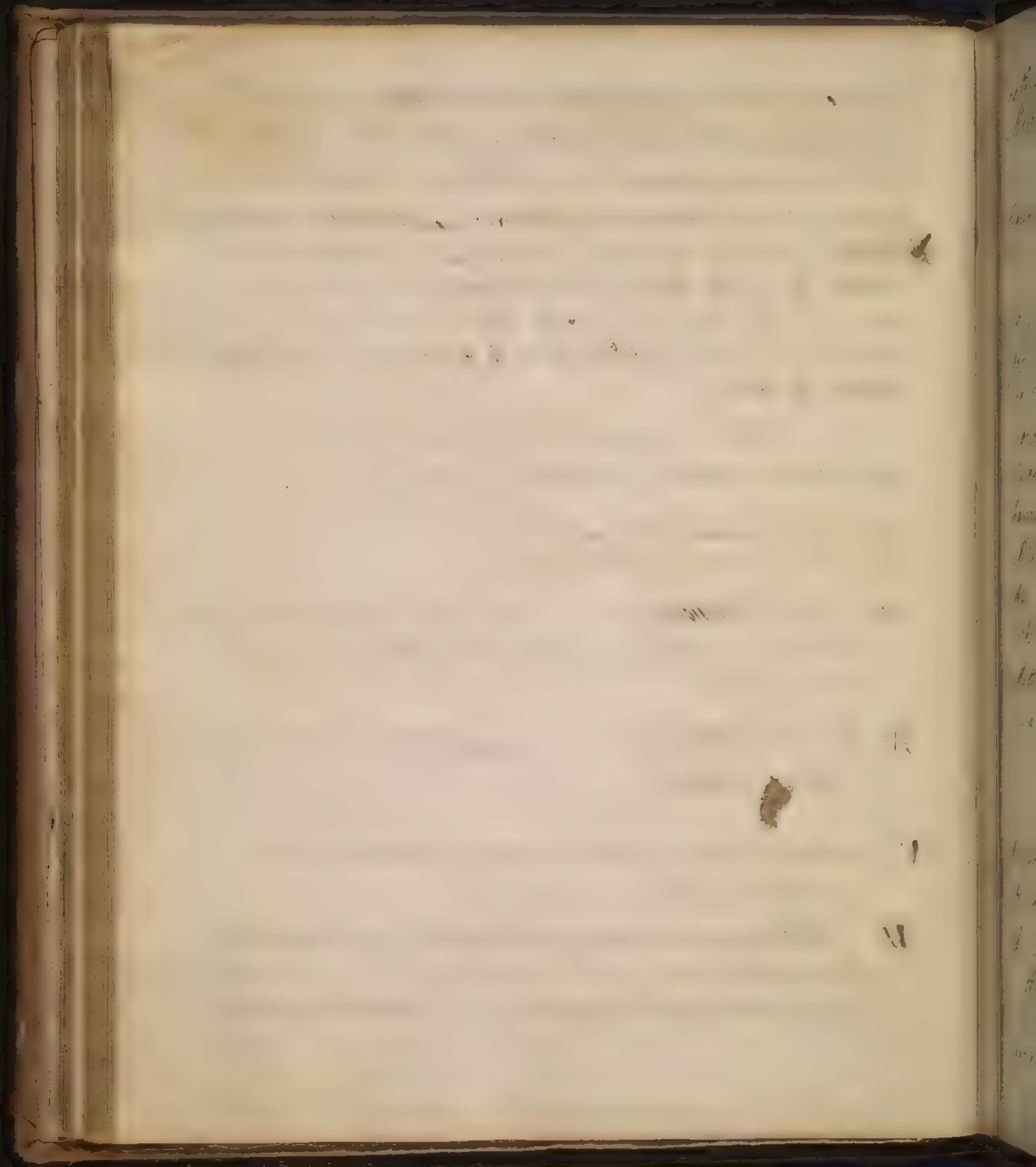
III. Of the Physiolog, or a knowledge of the laws by which  
both the general and particular Functions of the system  
are performed.

IV. Of the Patholog, or an acquaintance with the dif-  
ferent functions.

V. A knowledge of the manner by which the disease  
is to be removed .... and

VI. a Dogmatic plan requires that you know how  
to find the proper means for doing this, by an ac-  
quaintance with the powers - .... Which is shortly no

thing



nothing else but a knowledge of the Institutions of  
Medicine. —

34.

I shall now give an account of my present intended  
course, with the Order I shall follow in giving it

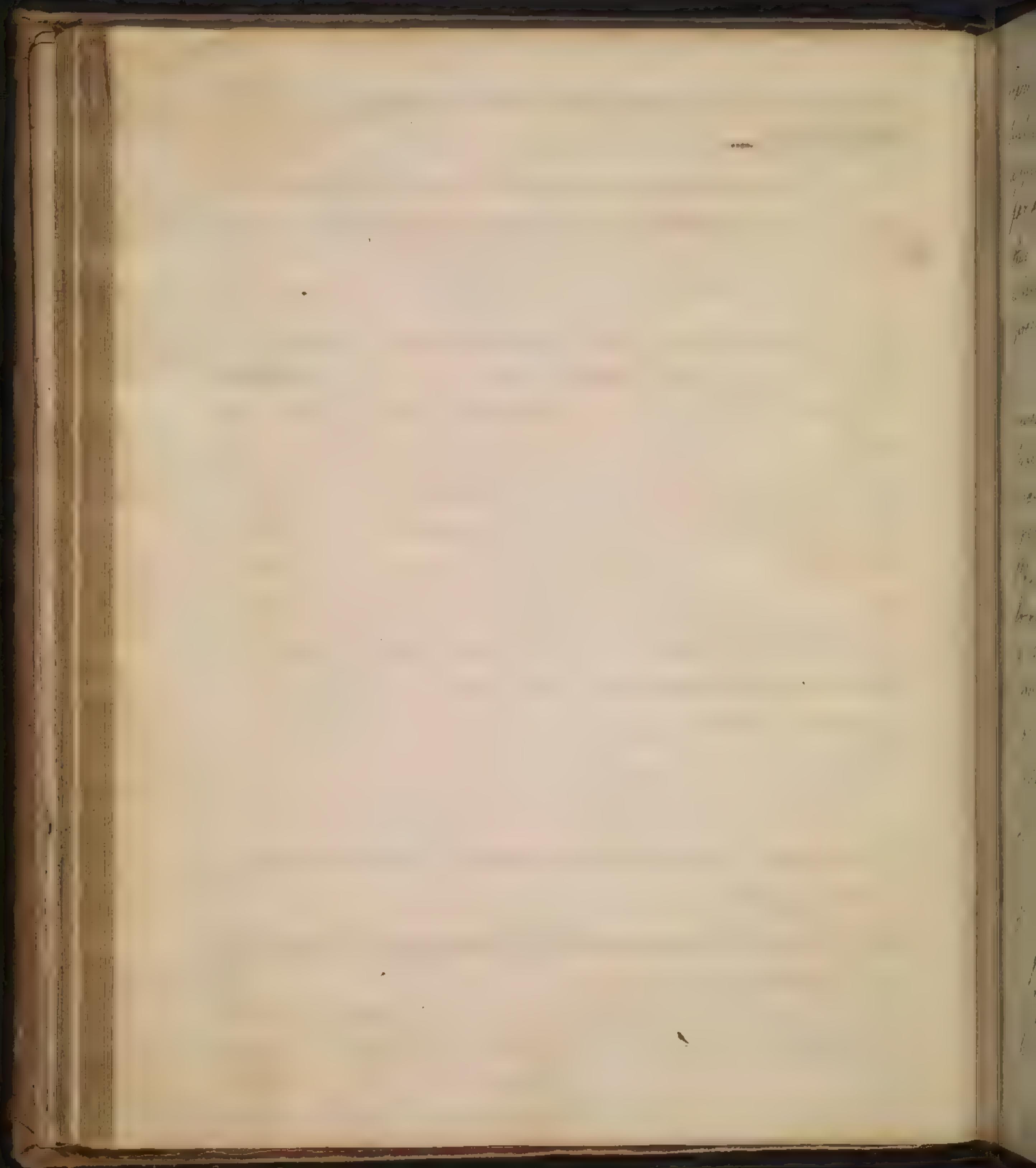
As I suppose a Pathology premised, I shall take  
Diseases, not as simple, but Compound, as we commonly  
find them. .... I shall consider them as they are distinguished  
by a steady concourse of symptoms, into Genera, ac-  
cording to a *Necologia Methodica*, which is a study  
I would engage you in. For this purpose I put in your  
hands the *Prima Section* of an attempt to a *Necologia*  
*Methodica* ... You have there the Genera of Diseases as  
they are distinguished by Savary, Linnæus, & Bozel,  
who have each given us their systems of a *Necologia*  
*Methodica*, and afterwards I have added an attempt to  
wards one of my own.

My Plan is this.

1. I shall take notice of the concourse of symptoms belonging  
to each Genus.
2. I shall endeavour at the Proximate Cause of  
the Genus.

This part of our plan is in a great measure  
imperfect, as it is not always in our power to know  
in some

cases



35.  
Case we can explain the Proximate Causes pretty clearly, but in others we can only point out the way, without applying it to every particular. Here we shall treat it as far as we can & direct us in our method of Cure. Besides this there will be a few cases (and I hope they will be few), when I shall be able to make some any conjecture, but proceed on a plan almost purely Empirical.

I shall abstain as much as possible from particular Opinions, and shall adopt the Dogmatism of Dr. Sydenham only with improvements from our late advancements in anatomy and Physiology. I shall give a species of Dogmatism as yet but little known among Physicians, but which I conceive will not be refused by any Empiric.

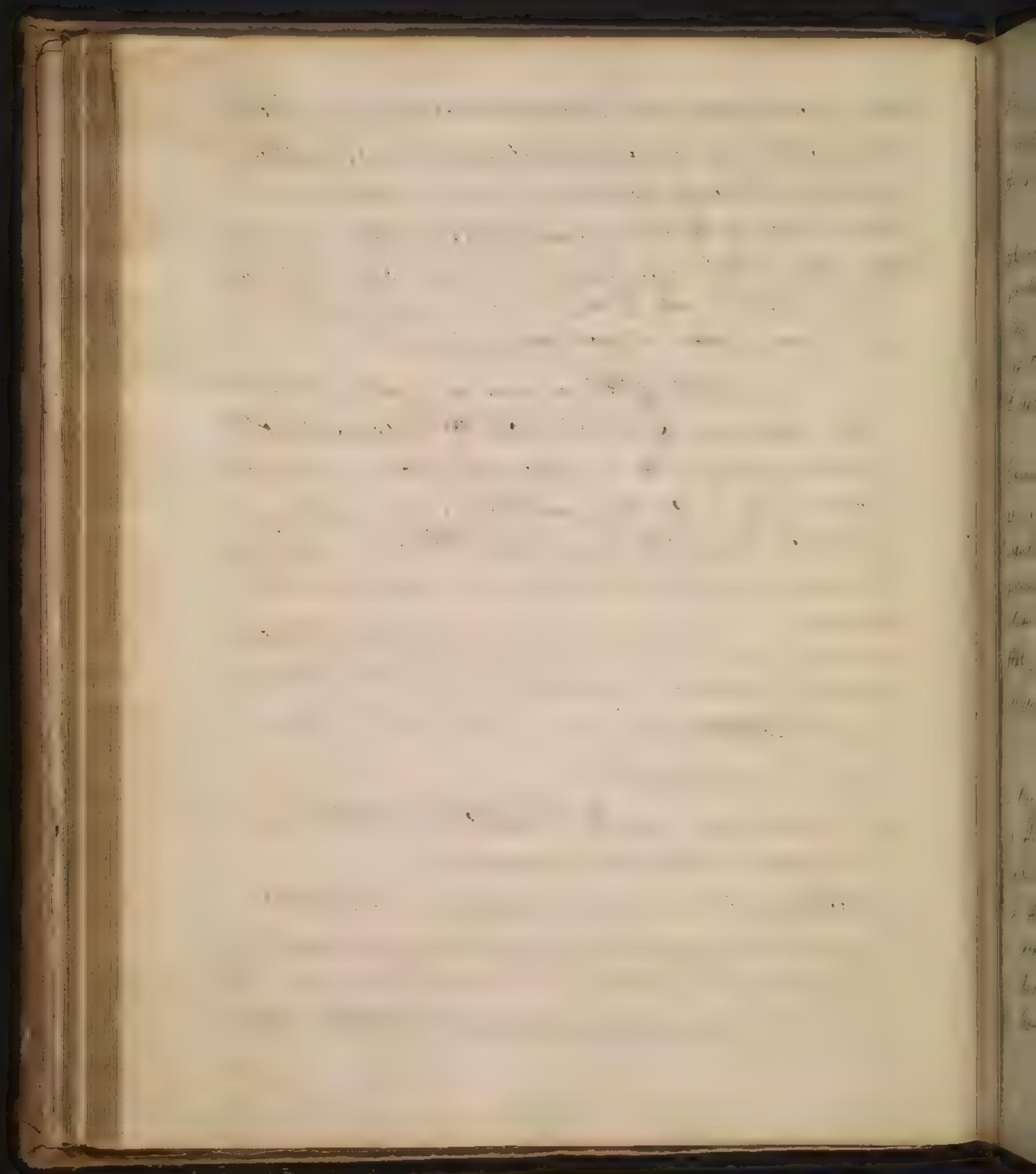
3. From the Proximate Causes and the Phenomena of Diseases, I shall endeavour to fix the Character of the Genus, and also to distinguish it into species, and Characterize them.

4. I shall give you the Absolute Causes, connecting them with the Proximate.

5. Where it is necessary, I shall give a Prognosis from the proximate Causes, taking care not to suppress any fact relating to it, which ever way it may tend.

6. I shall in the last place attempt the Methodus Medicandi.

Here



Here I shall endeavour to form Indications on the proximate Causes; but shall always show where it proceeds with the greatest Certainty -

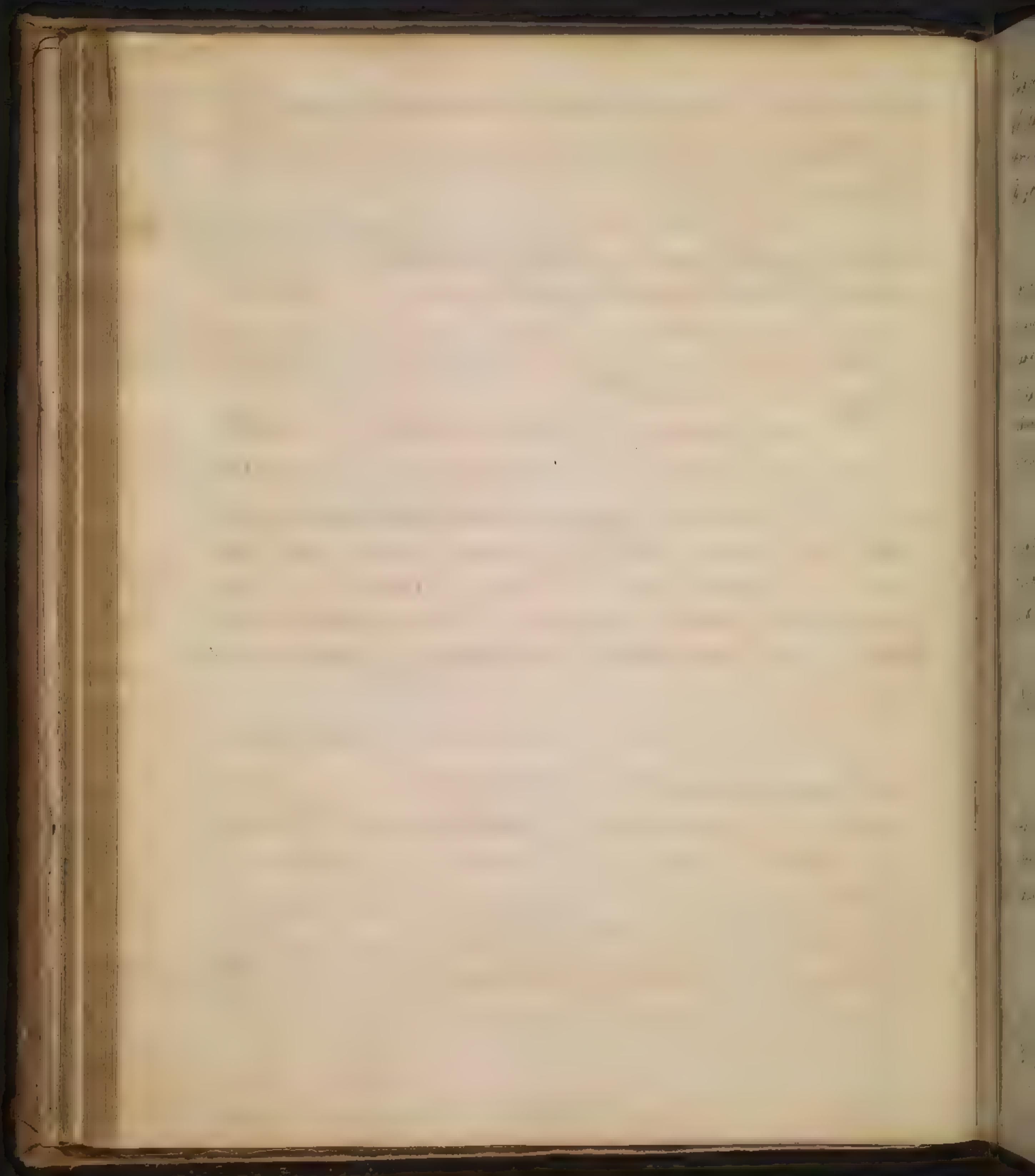
Beside this, that nothing may be neglected, I shall take notice of the several methods of Cure that have been practised, and the remedies that have been used in the disease. Then, if you do not like my dogmas, I give you Empiricism; and this is my plan, by which I treat the Genera of all Diseases.

Next as to your method of studying with this Course, I apprehend it is neither necessary nor practicable for you to read much. Nay, I know that Gentlemen, from want of time and other circumstances, cannot possibly at present enter into an extent of reading for the general study of the practice of physic. The chief thing, then, that you have to attend to, is to follow my Lectures as well as you can -

In teaching Science there are two methods by which a Professor may proceed in giving his Lectures

1. He may give the practice of Authors exactly in the common order followed by them, and in so doing may use a Text-Book.
2. He may proceed on his own footing, and make what improvements he can, either in the matter he gives, or the Arrangement; for which there cannot well be the greatest room in Physic, which is in a condition so fluctuating.

Yours,



37.

Indeed, I should have but a poor opinion of the genius, or  
at least of the diligence, of any professor, who did not attempt  
something of that sort - I am therefore, with all humility,  
A attempt such a method.

With regard to the reading that might accompany this  
course, I can hardly direct you to any that will - with Gentlemen  
as are further advanced might compare the systems of Stahl, Boer  
haave and Hoffman, which are now much in vogue, with what  
I shall deliver; and to this purpose, in the Genera Morborum  
which I have published, I have mentioned the Synomina of each  
Genus, with references to these three authors.

For Stahl's system, the book, I recommend to you  
might be Janke, Lector, or Alberti - But as in this country  
Janke is most easily got, and is the one I most commonly find  
in the hands of practitioners, my references are all made to it.

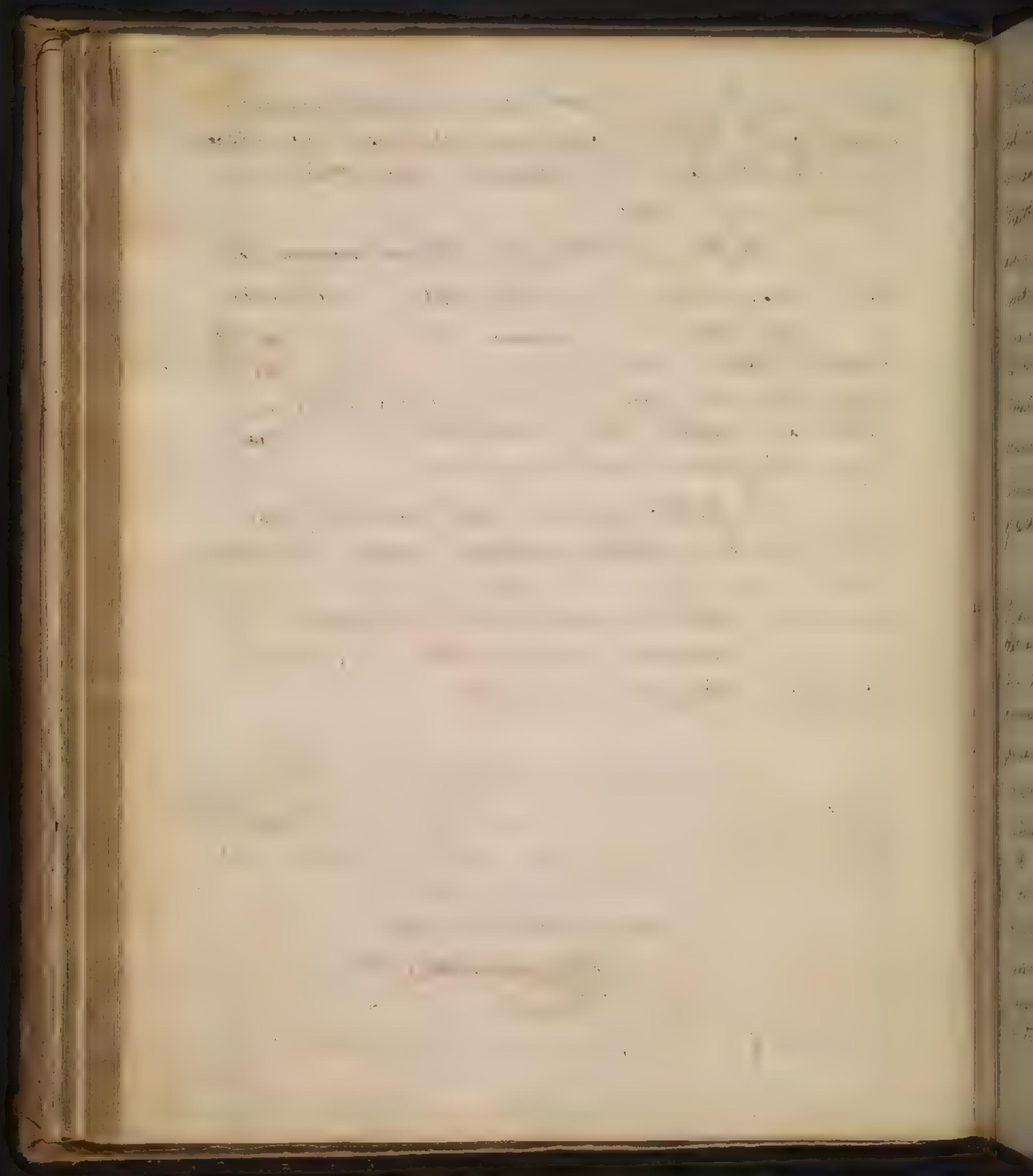
I would have you all read Sydenham, and have the  
Narologia Methodica in your hands.

I am now to enter on teaching the practice of physic;  
and here I cannot pretend to aim at Elegance of style, or attempt  
good composition in my language - But the chief thing I shall  
have in view will be precision and perspicuity -

The objects of Practice are two.

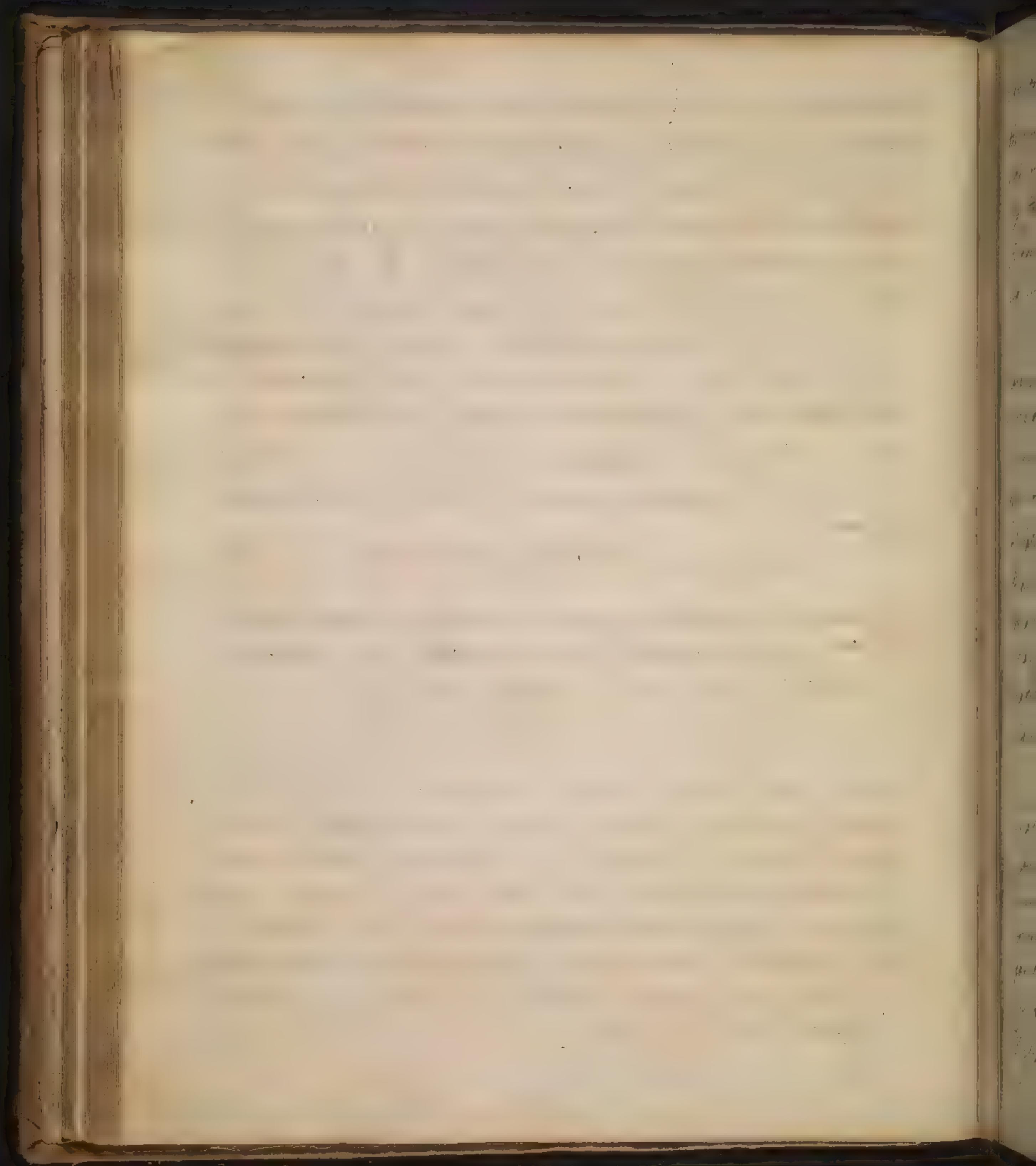
1. The art of Preserving Health, and
2. Curing Diseases -

The former ( ) is generally brought under the head of



Institutions; but you will remember that I omitted it when teaching that branch, also for the same reason do not take it in here; because we have no direct means by which we attempt the preservation of Health, but the whole will, on Examination, be found to depend on avoiding the Causes of disease - and therefore the Hygeicina depends entirely on the knowledge of the remote and Predisposing, or Antecedent Causes of Diseases - I shall therefore only take in here such Causes as require a certain Prophylaxis - Then I shall take notice of in particular - With regard to others, they require only general Inferences, which may be made afterwards, and be understood only after you have learned the practice, or care of disease.

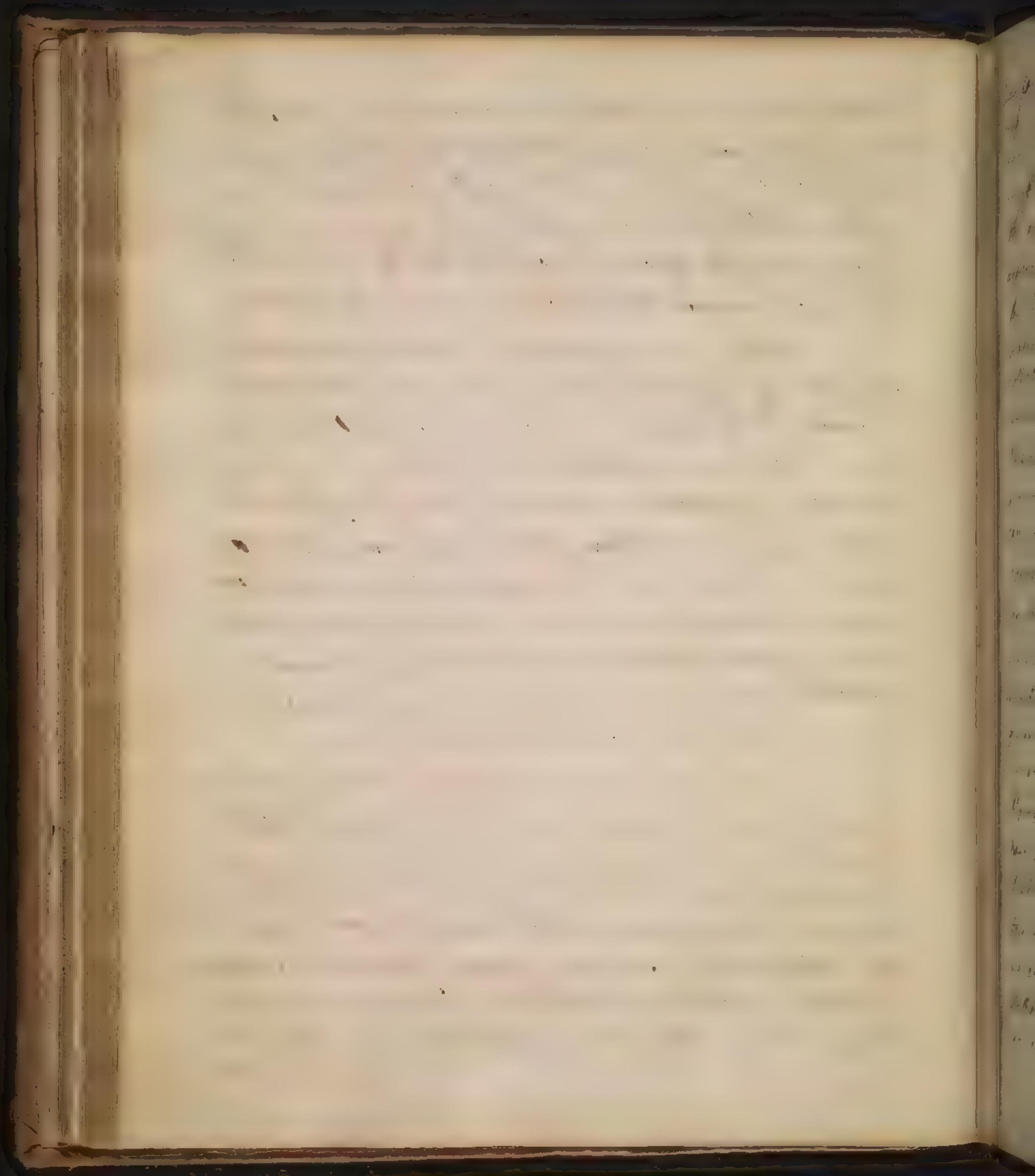
And now upon the whole, after all I have said of the Dogmatical and Empiric plan of studying Physic, Define that our practice may depend as much as possible on Experience - Our chief attention must be employed to distinguish between diseases as they differ from each other in their Symptoms; for you all know very well that they are not distinguished sufficiently by their names - To give an example - I find a disease which I have never yet seen - I do not trust to Theory, but look into the Observations delivered by Authors, and there is a disease I can most properly refer it to - Now I have here a method of cure laid down by the Author, and have it well attested by good authorities, that certain simple remedies, as bleeding, purging, &c, or such general remedies which we are well acquainted with, have proved successful in the cure - I try these in the case



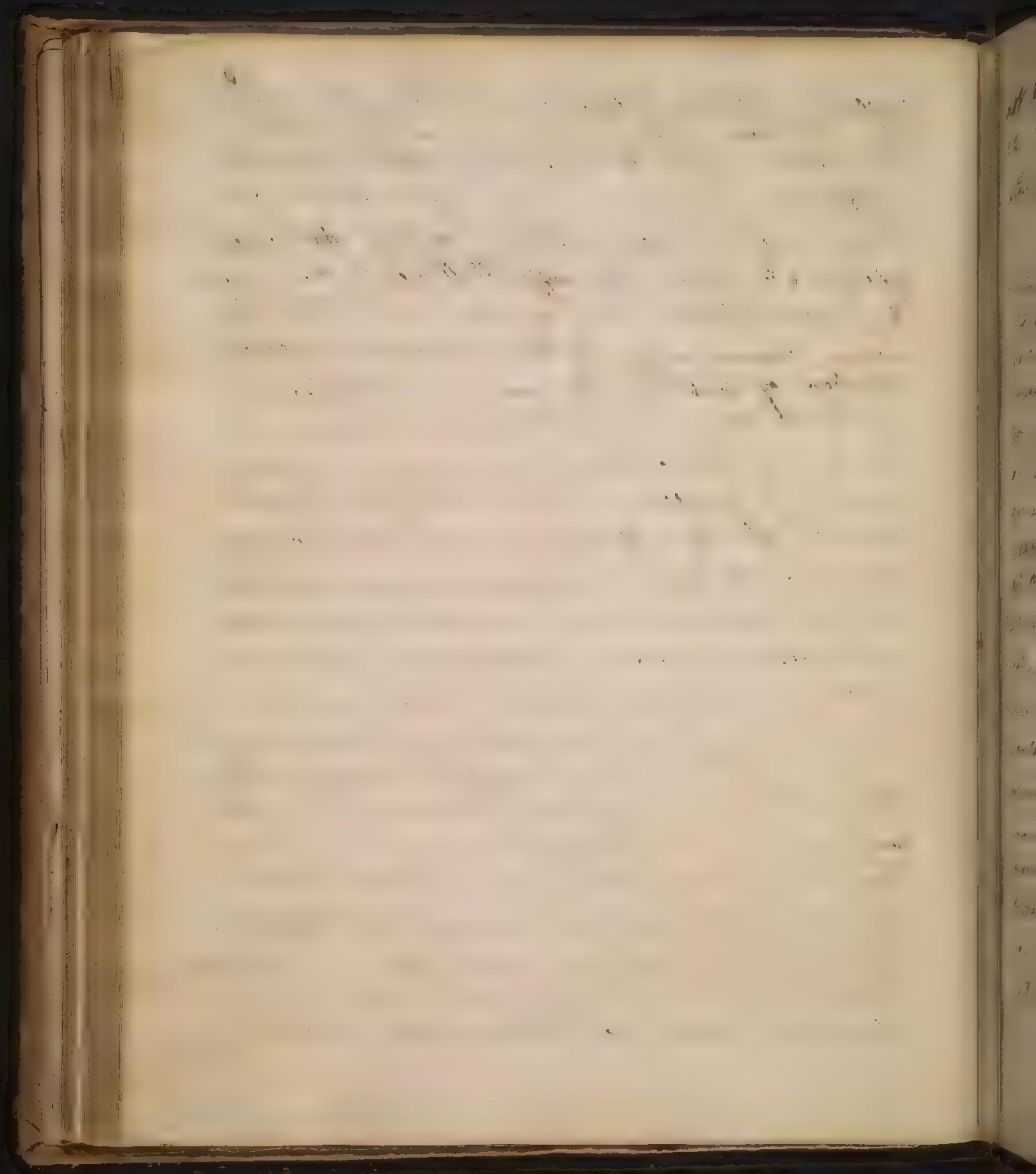
case that occurs to me, but find they do not answer; therefore,  
the remedies be good and the authors deemed faithful, I must  
not impute it any false relation of the Experience delivered  
by these authors, but it is an error in myself, who made a wrong  
judgement of the disease, and concluded that the case in hand  
was improperly referred to the Disorders mentioned by the authors. 39.

Authors have hitherto given definitions of disease ac-  
cording to their respective Theories, which should therefore dif-  
fer according to their different Opinions - Accordingly Savages  
in his *Pathologomina* has collected no less than ten different  
definitions of a disease so well known as the Pleurisy. But  
of late, finding the fallacy of them, they have rather begun  
to give an *Historia morbi* - But even with this, a physician  
treating a particular disease, will be at a loss; for he will find  
many symptoms there mentioned which do not occur in his  
patient's case; and there may also be many in his patient's  
case not taken notice of in the history.

No Order or Series of the succession, or Combi-  
nation of the Symptoms, has been ever attempted, altho'  
you will see in the preface of Sydenham, and through  
almost all Baglivi, that the defect has been noticed and  
grievously complained of - We have, therefore, long looked  
for Pathognomies, or such essential symptoms as constant-  
ly occur, and belong to every one of the species of this  
Disease - These, though long wished for, have not yet  
been



been found - Hoffman, Boerhaave, and other Systematis<sup>140.</sup> in  
their works have treated only the Genera of diseases,  
and left the species & Theoretical notions - But this  
is insufficient - and (however I may myself be abridged for  
(the same defect) I declare that it is necessary that we should  
define also the Species - It is difficult to suppose this, in which  
the Dogmatists have been defective; but to do this the  
modern Imperies design by their diligent and accurate  
Collection, of facts which they make of - But they have never  
answered the intention - In Mr Leentand's Synopsis, in the  
Example of Hypochondriasis, he gives for his Historia  
a number of Symptoms, which never all occur in any one  
case; and after this, having given such an account of the  
species, he actually gives a Theoretical Cure - And this is,  
an Imperie plan, when such an Historia morbi is pre-  
-mised, can only be given by laying down a number of  
undetermined remedies in a list, without any thing to  
guide us in applying the use of them to particular cases - But  
we are not entirely at the mercy of Mr Leentand - Drs  
Pringle, Avesham, Cleyford, Norton, and Egentham  
have given us excellent Observations on particular diseases -  
But the misfortune is they have not treated all Diseases in  
this manner; but many yet remain untouched! therefore  
we are at a loss concerning all, excepting those on which these  
authors have touched - For example, Pringle has given us  
an excellent account of the marsh-fever, but it would  
not

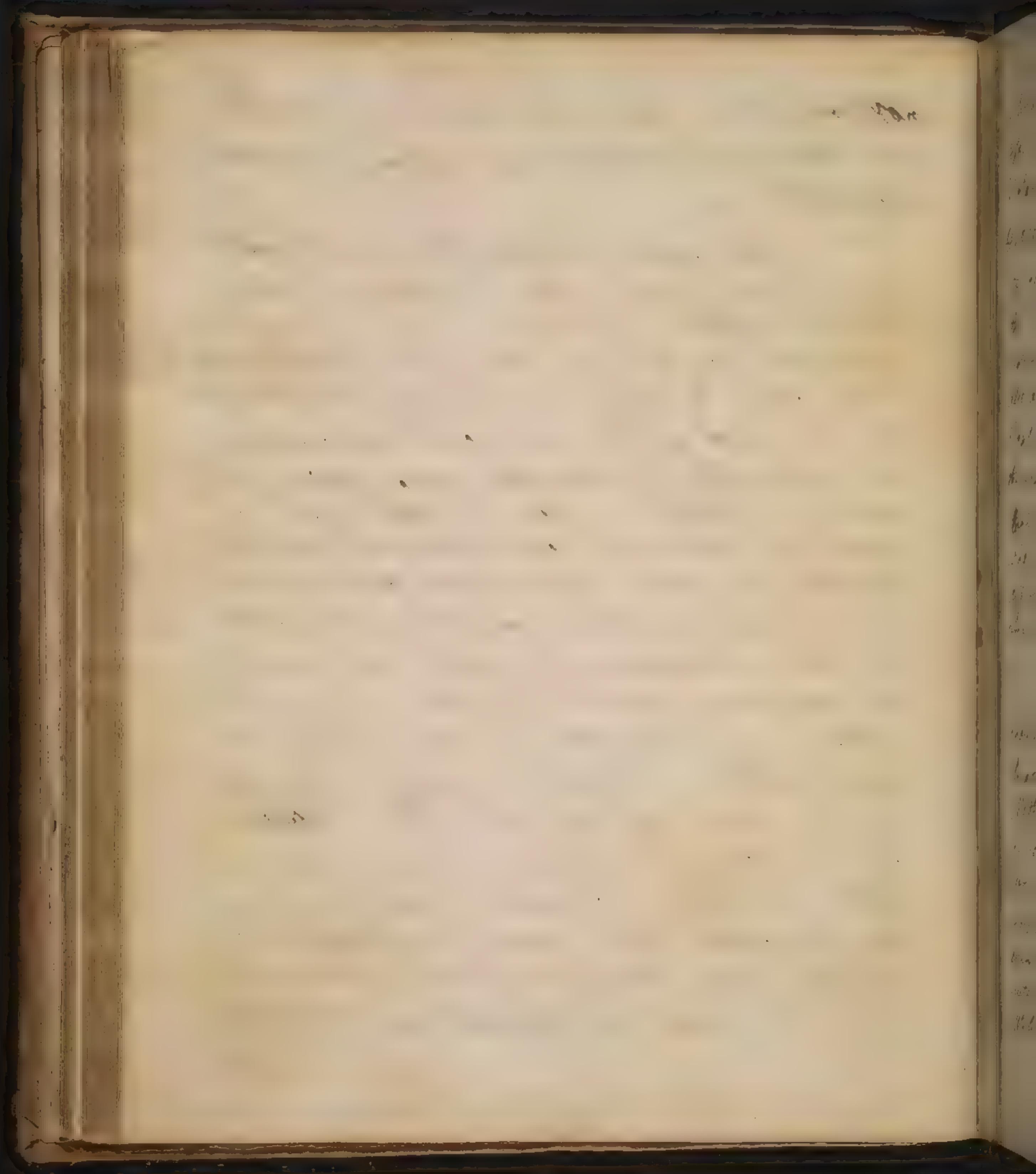


21.

not have been so, had he not compared it with with the like ~~Features~~ of other Countries, and such as are described by other authors -

Some people are disposed to sneer at so great a  
nicity or accuracy, and to esteem it trifling, or both up-  
set and troublesome to live with such minuteness and  
particulars - For example - Many of our Botanophy-  
sicians are apt to laugh at the minuteness of Nathaniel.  
You know that at this time 10,000 Plants are known  
and distinguished by Botanists, but only 300 of them  
are used in Medicine - Now one of the persons I am  
speaking of would say "I cannot embarrass myself with  
"all these, but will be contented to know those 300 only  
"which are used in Medicine; for a knowledge of the  
rest would be troublesome and useless" - He does not con-  
sider that it impossible to say whether or no some ad-  
vantage may not hereafter accrue from pursuing the  
subject further - But besides, it is absolutely necessary that  
some one should study the subject with minuteness, in  
order to enable us to convey our meaning to posterity, or  
to those at a distance; for you know that no one object  
can be accurately defined, except it be distinguished from  
all other species, which implies a knowledge of them all.

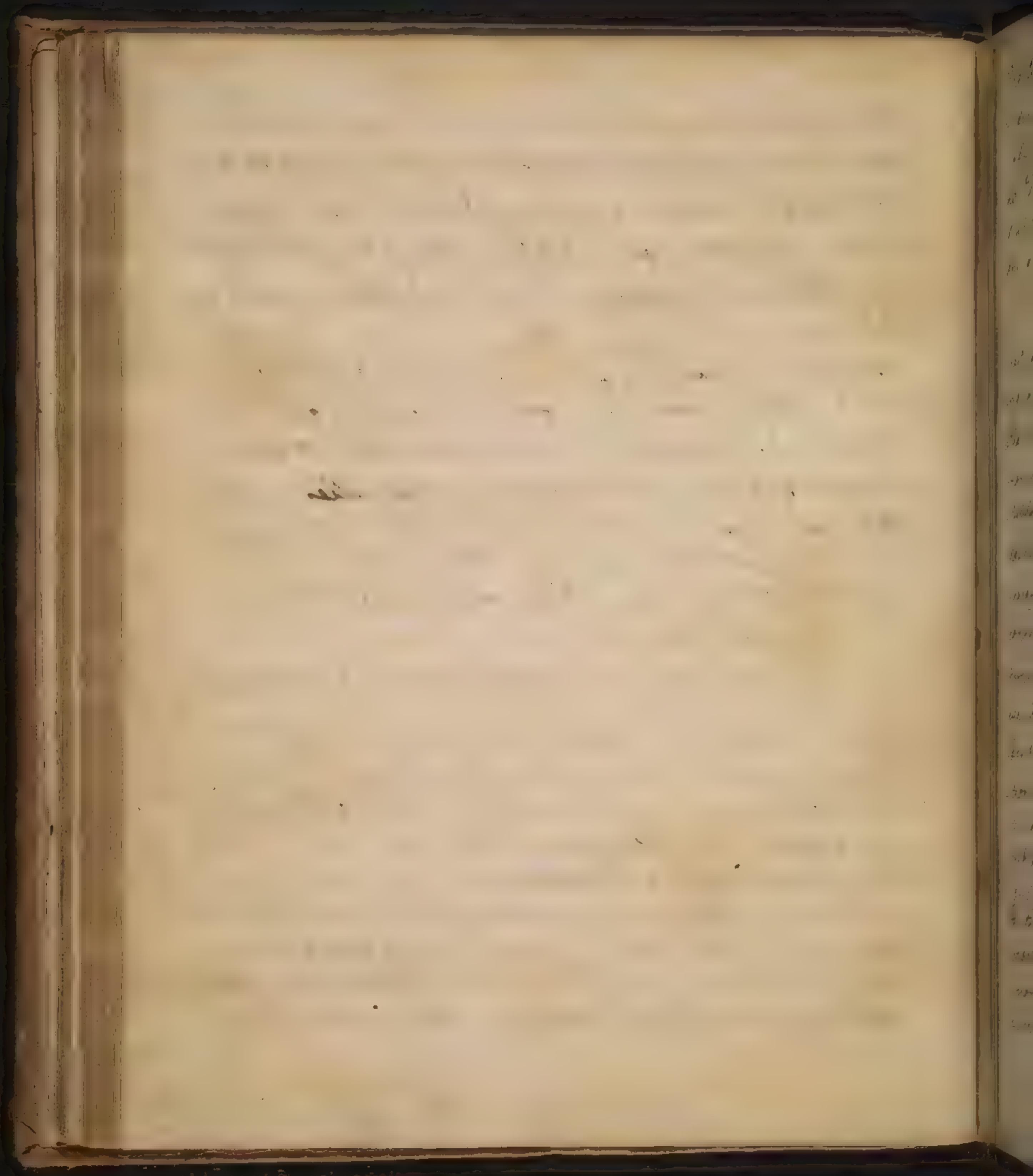
Now I say that diseases ought to be distin-  
guished



42.

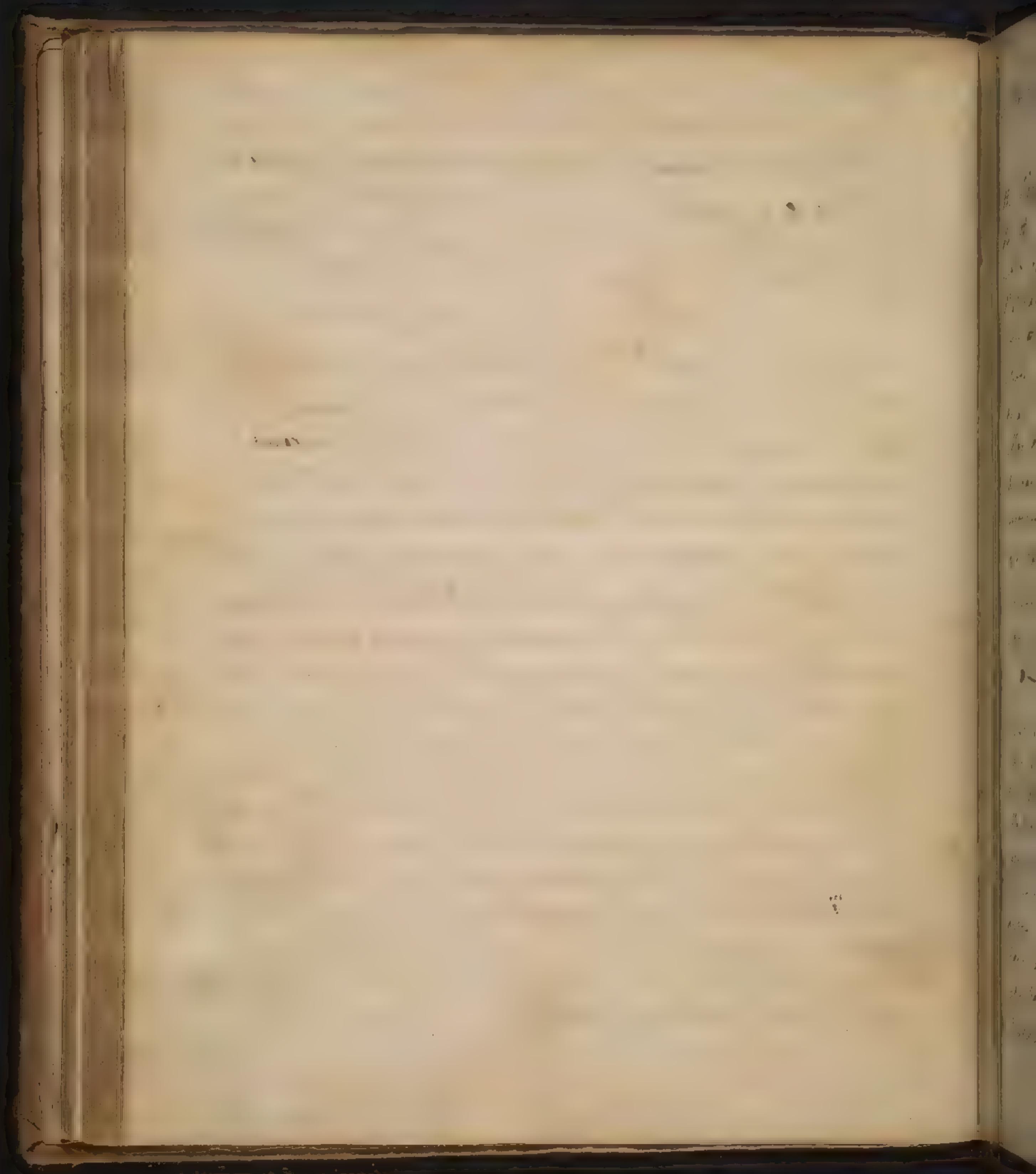
distinguished with greater accuracy and minuteness, than heretofore. The best method then for doing this, is that of the Botanists, viz. to divide or distinguish them into Classes, Orders, Genera, and Species. The usefulness and necessity of this was long ago seen, and the matter proposed by the sagacious Tydenham. It was also hinted at by his contemporary Morton, and since him by others - and also a Scheme was given for the execution of it by Baglivi. &c. However it was never attempted till about the year 1731, when M. Savauge of Montpellier, under took the work, with the approbation of Boerhaave, who in a Letter to Savauge takes notice of the great difficulty of executing such a work, but at the same time the usefulness of it.

It is not improbable that his first attempt should be extremely imperfect - As some of the first publications of his Scheme under the title of *Botanica Methodica* were - even the third Edition of it, published so lately as the year 1759 (which is the earliest I have seen) is but half a Decadeino - How many of our present practitioners will not hesitate to tell you that every work of this sort is useless, and impossible to use - But I warn you of this, and loudly pronounce the utility of such a Study. There are indeed many old practitioners



Practitioners, who are resolved, either openly or in whispers,  
to derogate all new improvements in System, and fre-<sup>143.</sup>  
- ally throw (of whom we have several among us) who have  
no Idea of system, even with regard to natural History -  
But the judgement of such as these ought to be ~~but~~ <sup>but</sup> ~~of~~ <sup>of</sup> side,  
and altogether disregarded, as having no weight.

To those whom I have already mentioned, I  
shall one more authority only for the propriety of compil-  
ing a system, or nosological methodica. i.e. Gaubius (as  
that he says in his Chapter "De Ordinandas  
morborum Differentiis"). However I would not so absolutely  
- maintain the Propria, Necessaria, & semper  
- eadem symptomata as he does; for the differences often  
- veraments, climates, and other circumstances must make  
considerable Variety - He concludes in par. 840, and declares  
himself of an Opinion quite opposite to that of the persons  
we have just been mentioning - He is here very confi-  
- dent as to the propriety and possibility of the execu-  
- tion of such a scheme - this is a little particular as to the  
- curiosity of ascertaining the names of disease, and says that  
such a work will go further than this, and serve to distin-  
- guish Disease in their nature and Cure - With regard  
to the ~~the~~ Problem, in the words of Dr Pitcairn "Pall  
" morbo Invenire Curationem" I am of Dr Syden's Opin-  
- ion, that if we knew the disease, we shall know the  
Cure - Having, then, supported my scheme with such an



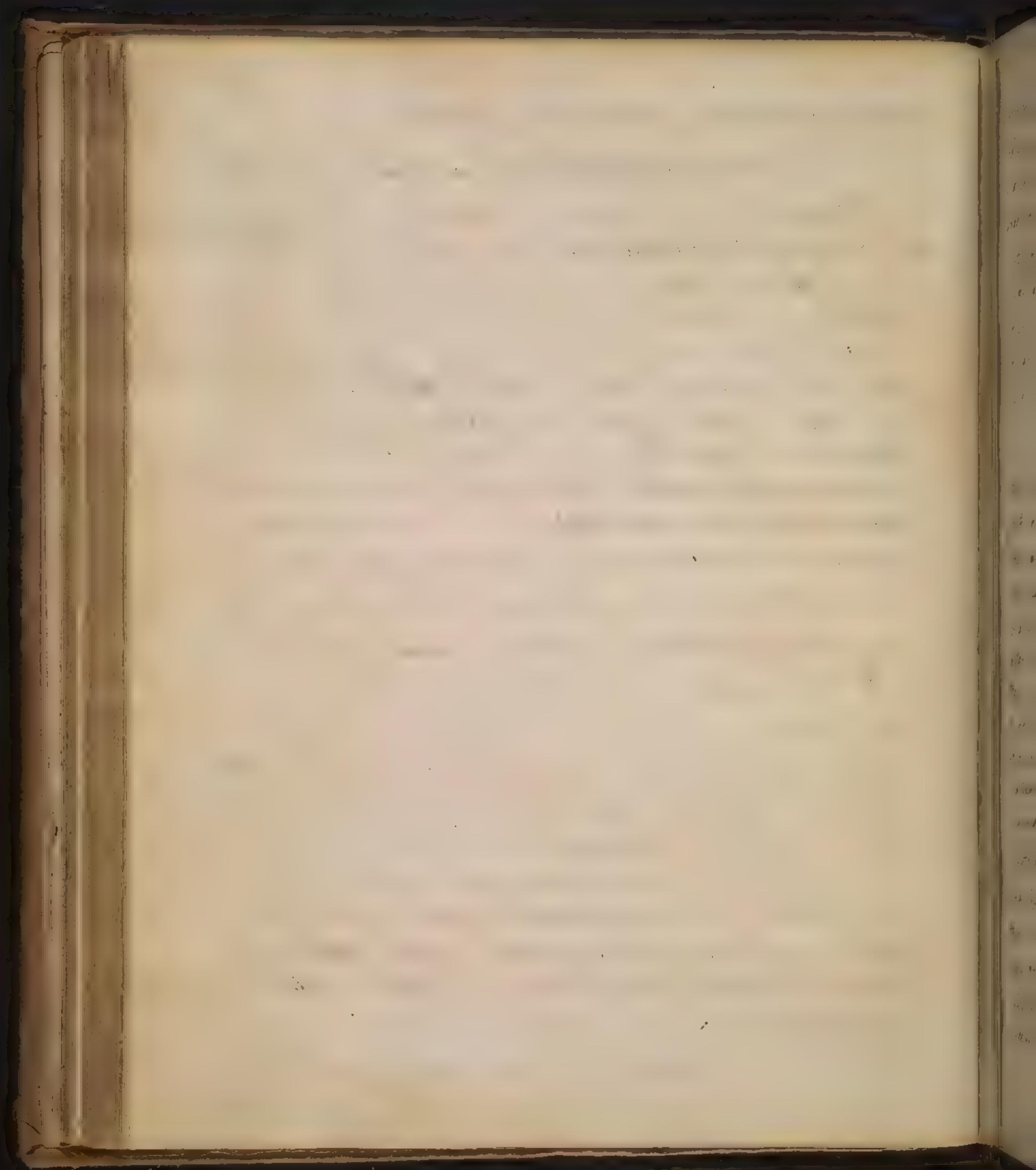
authority as Gantius, I proceed to my subject.

24.

Have here published for you what may be called the Princ<sup>ps</sup> Lines of a Pathologia Methodica. M<sup>r</sup> Savages has the honor to have been the first who ever attempted a work of this sort, though some deny it him - since his first publication he has always in his succeeding editions made very great improvements in his system - after several editions of his general scheme in his Pathologia methodica, he at last, in 1763, published his Pathologia methodica, sistens Morborum Claves, in five volumes Oct.<sup>oo</sup> - since which he has published another edition of it, with considerable improvements (which is the last), printed at Amsterdam 1768 in two volumes Quarto. This is by much the most perfect, and is undoubtedly a very valuable book - It is in this last edition you must consult and consult on occasion, if you need

Within these ten years two other authors have made attempts of this kind - The accurate Linnæus, so famous for his skill in natural history, has given us his system. And also M<sup>r</sup> Vogellius of Gothenburg, has published a Genera Morborum. However, as these last are rare, and not easily got in this place, and besides would be too bulky and inconvenient for you to bring to this place, I have published along with my own, these three systems, I think you may have an easy view of, and may readily compare together - Now you have all the systems of this kind that have been published.

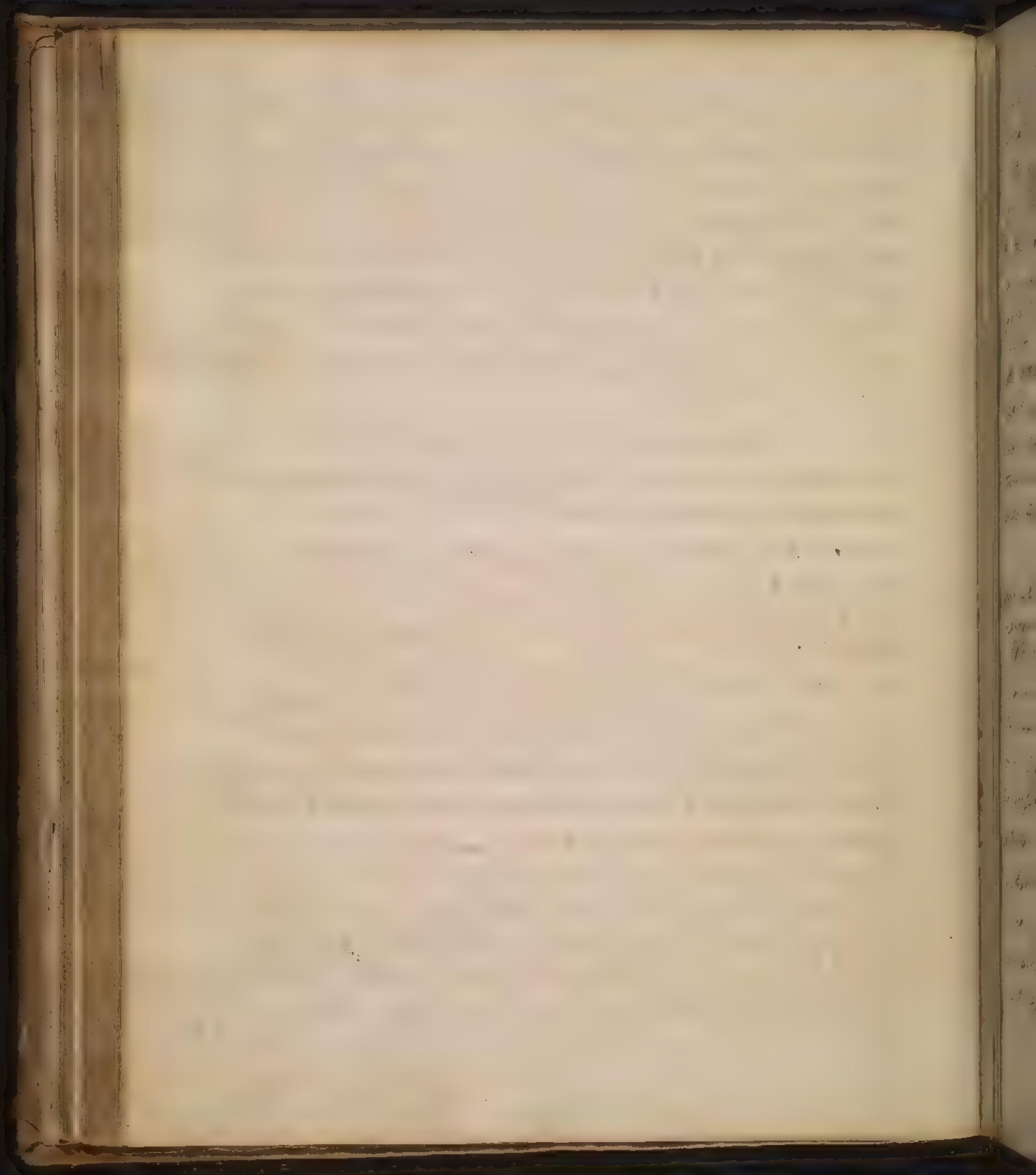
Yesterday we gave a long preface to the bu  
-finis



business of our Course. - It was desirous to calculate that no thing was more necessary than an accurate Distinction of diseases; and we have by no means as yet obtained this, so as that it might give us a proper and steady practice. - The necessity of such a Nosologic System, has been long seen by the good and wise. But the Dogmatical Systematists failed in it, and the Empirics have not filled up the defect. - The reason it has not been executed is, that we have never taken the right method of doing it.

It appears that the best method is that which the Botanists follow in distinguishing the numerous objects of their Science; for, according to the maxims the Logicians have delivered, nothing can be accurately defined but by its Genus and Species. - However, I know that many practitioners are disposed to declare against every attempt of this kind in system. - But in Propositions of this I gave you great Authorities, whose opinions were highly in favour of the Propriety of such an undertaking, especially Dr. Gaubius, who has a very clear Idea of the nature and utility of it. - I would therefore have you carefully read the whole of what he says on the subject, as quoted yesterdays; for every sentence he has delivered on it has some particular meaning in it. - I told you what progress this work has made within these few years, by the hands of Mr. Savages lately. - I also told you that Linnaeus and Vogel had each given a Genera Morborum. - Now all these, for convenience sake, I have put

- a few

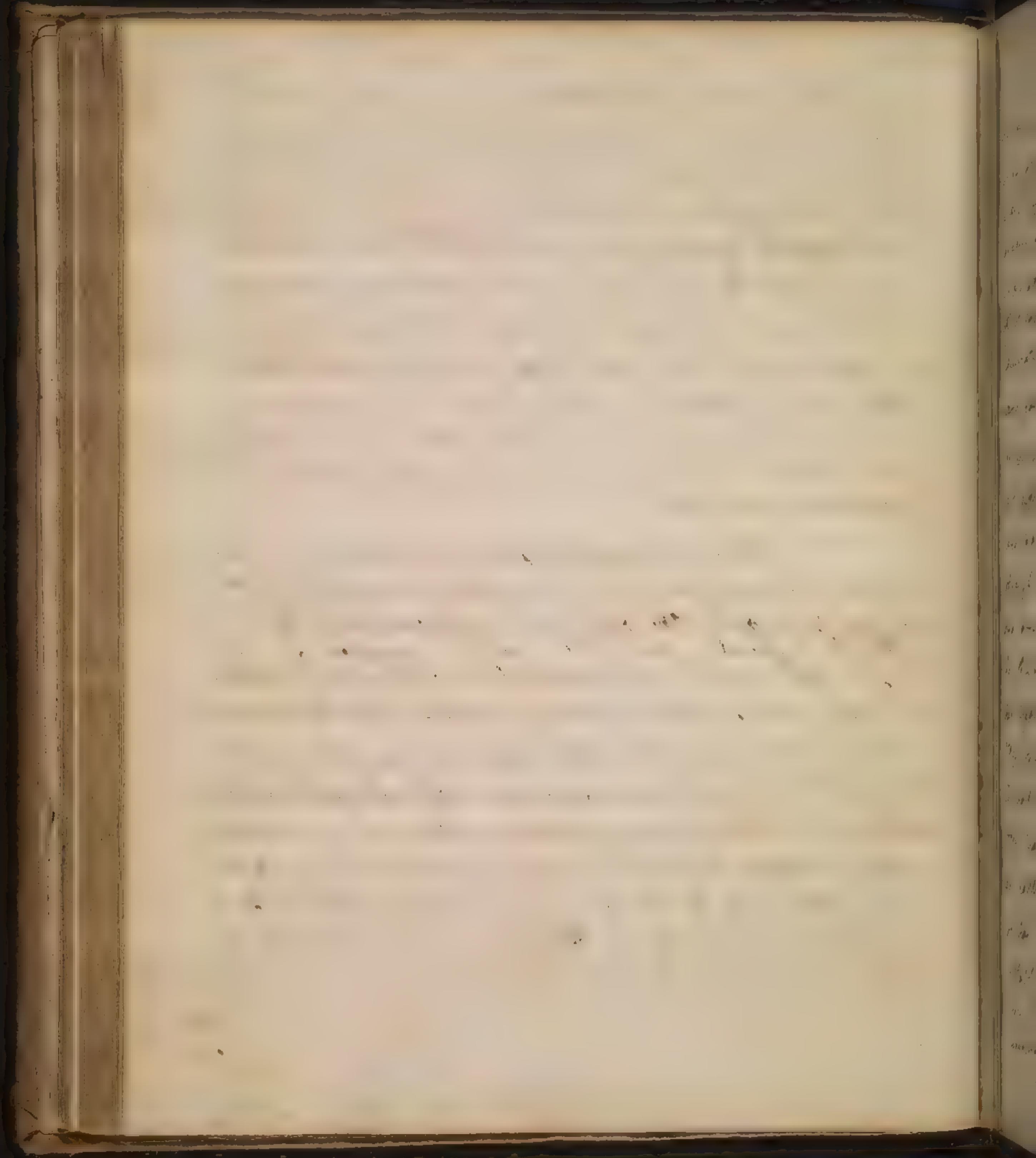


16.

published together, and altho' there is even one of them of great value, yet in my present situation I am under a necessity of finding no fault with them - Therefore, as an apology, I yesterday gave you the Opinion of Dr Boerhaave & the difficulty of executing a work of that kind - And indeed it is not possible that it could be brought to any degree of perfection in so - Therefore I have given you also a synopsis of my own, in which I have endeavoured to improve on the others - It was a long time before I would resolve to hazard such an attempt in print, and even now, from the short time which was allowed me to prepare it, I am afraid there will be many Errors in it, more than I shall be able to account for -

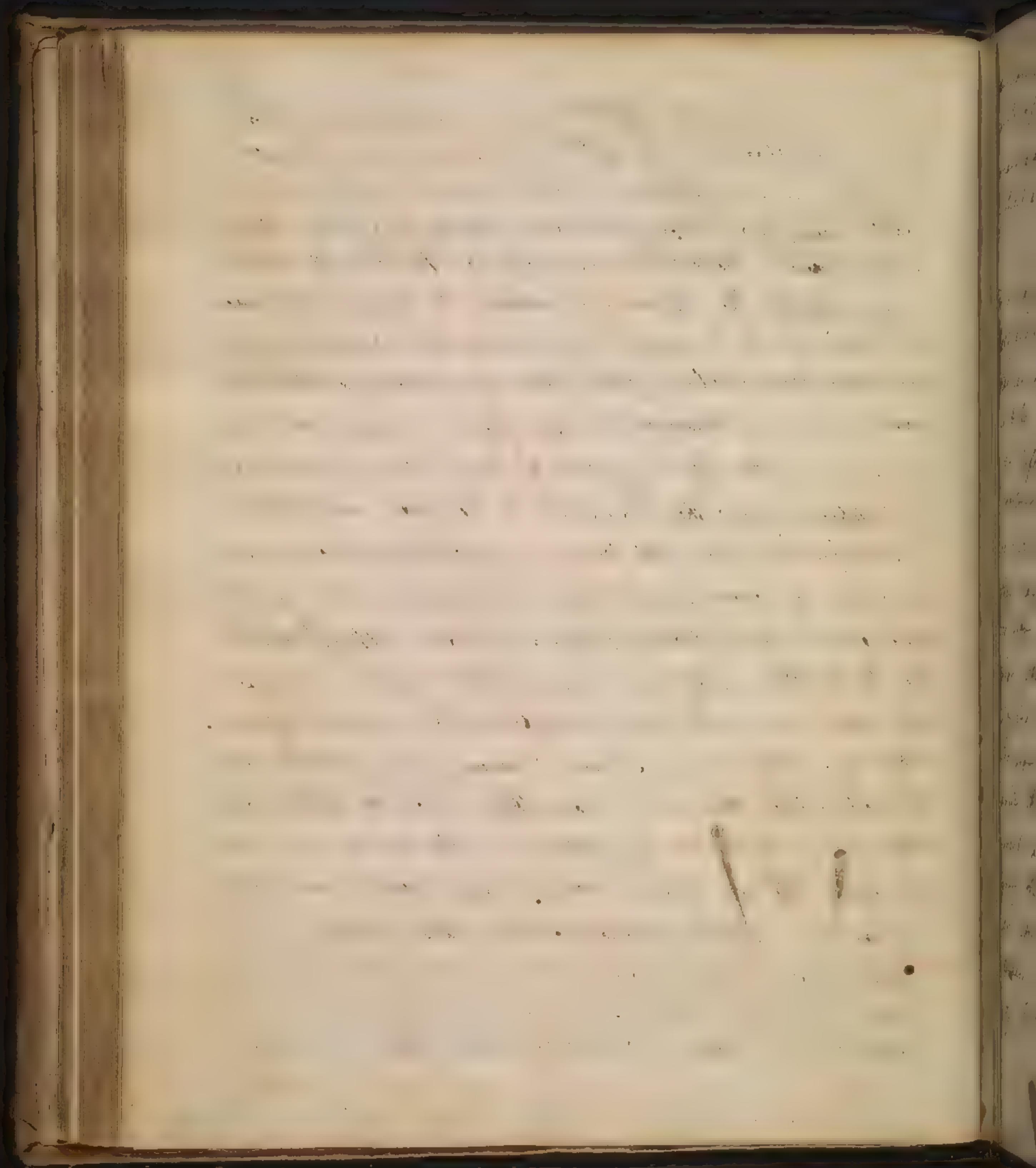
Having now acquainted you with what the Text I have put into your hands consists of, I must next say something of the manner of using it - And first I must say something of the Method in general, which indeed will be a digression, & what I would a blunder, but is absolutely in our present situation - and now, once for all, I make an apology for this, and other such Diversions - I am certain that what I am going to say will be useful to many of you, as those especially who have paid any attention to Botany, or any part of Natural, will know very well what method is already; but as I am here situated I consider myself as a sea officer, who has the command of a Convoy, and think it his duty to wait for the slowest sailer in the Fleet - This, then, will apologize for the present Diversions -

J



47.

I say that Method is a natural operation of the mind,  
and one that it is naturally determined to enter upon. Suppose a  
man of use and Reflection (who had never seen the Objects of this  
world before) dropped from the Clouds into the park, where three  
or four hundred Fallow Deer are grazing. Pleased with their va-  
rious attitudes, &c., he directs his attention to them; and as the first  
object appears to be a great variety among them, he at first, on more  
accurate examination, finds them very uniform, and that the  
same form runs through the whole Flock. Suppose afterwards  
he sees in another place a flock of sheep. Here he finds a mon-  
ifest difference from the Deer which he had before contemplated;  
and takes notice also that the same uniformity of shape runs  
through the whole of this Flock. Next he gets into a Forest  
and comes across a flock of stags or Red deer. At first sight  
he thinks them nothing unusual, but that they are the same he  
had before seen in the park, but afterwards he finds a differenc-  
They stare wildly at him, and he is in danger of being attacked, &c.:  
In short he finds them somewhat different from the others, though  
they bear a considerable resemblance. After this he sees what  
are called African Sheep - now then from reflecting on what he  
he has seen, and the Combinations he makes of them, he  
establishes two Genera out of them, each containing two me-  
sies - and this is the way he gets the Idea of a Genus com-  
prehending its Species. A species is that which admits of a  
division

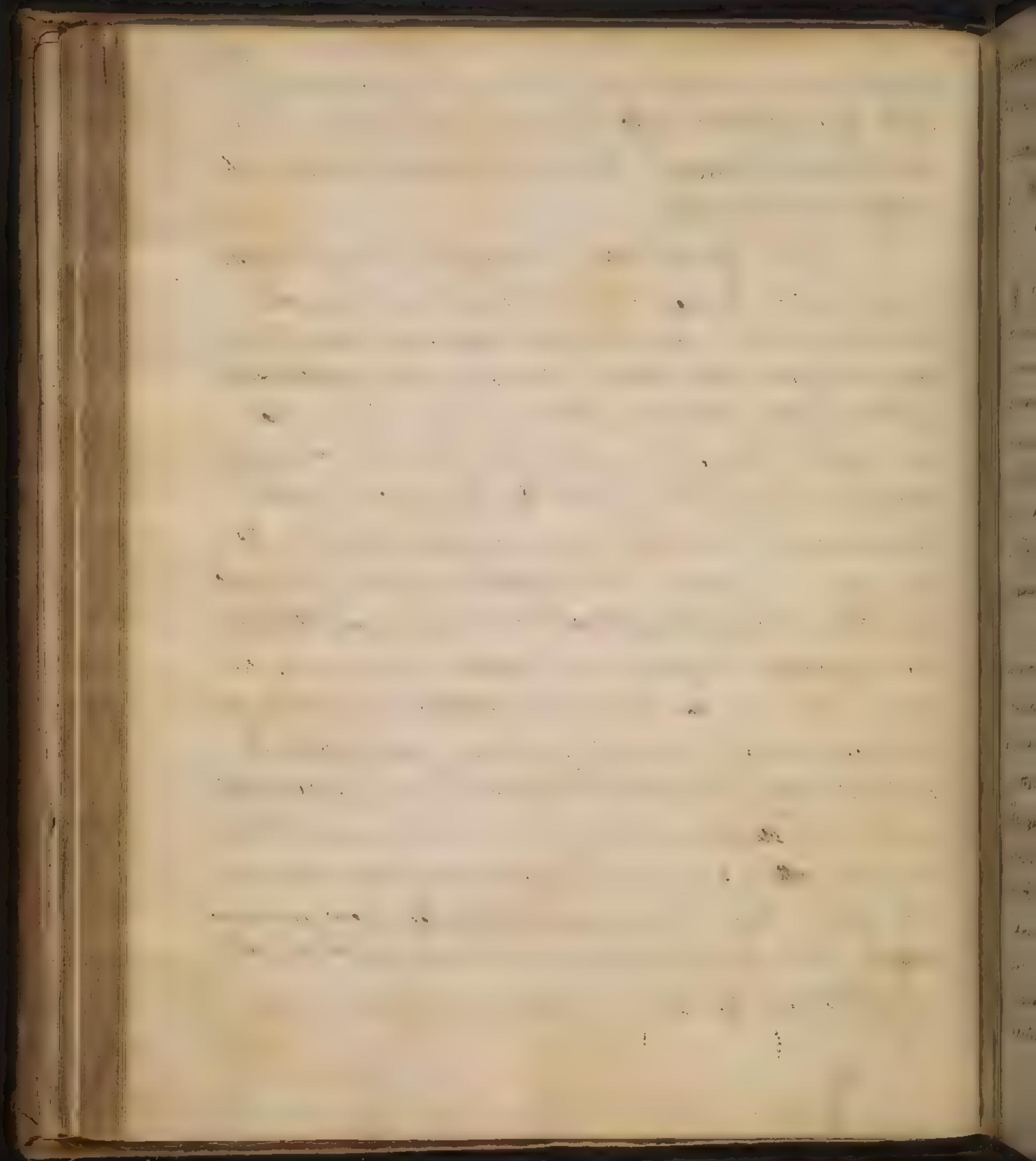


218

division into individuals only: and a Genus is that which admits of a subdivision before it reaches Individuals. — This man acquires a very clear idea as he sees objects. — Thus we abstract and generalize.

In the next place I suppose our Stranger is brought to a place where he sees a dog. Here he observes no horns, the feet divided into five toes, and that it differs also from all he had seen before in the teeth &c. — In short he finds that the dog is to be distinguished from both Genera and Species he had seen before, and can be united with them under a higher apartment only. — Now, to make the thing plain, suppose he next sees a Fox, which he finds to resembles the dog, that they may be united and ranked together, till to be distinguished from all the rest. — afterwards he sees a Cat, and then a Lion, which too he finds to unite together in a Genus, as the Dog and Fox, and that all these four together are distinguished from those four which he first saw. — Accordingly he unites the dog and Cat kind together into a higher apartment, and distinguishes them by some general marks from the others, i.e. the red and fallow Deer, the common and African sheep. — Thus naturalists of them have given us Orders. — The Dog and cat kind they unite under the title of FELID, and the Deer and Sheep under PECORA. — Next

96



stranger we are sneaking of, see birds flying over his head -  
Then he readily distinguishes from the whole body of Leda  
-rudeos - And lastly makes a distinction between animals  
and the trees and other vegetables growing around him -  
This analectic method, then, is that for which we natu  
-rally proceed in attempting a system - We proceed no fur  
-ther than distinguishing individuals which constitute  
the species - The next higher apartment is the Genus prop  
erum, comprehending the species, & which Systematists  
have given the name of Genus simply - The next, or the ge  
-nus which comprehends them, they call an Order - The  
next, which comprehends the Orders, is called a Class:  
and lastly the Classes are united together to constitute  
a Kingdom - This, then, is the whole of method ex  
-plained

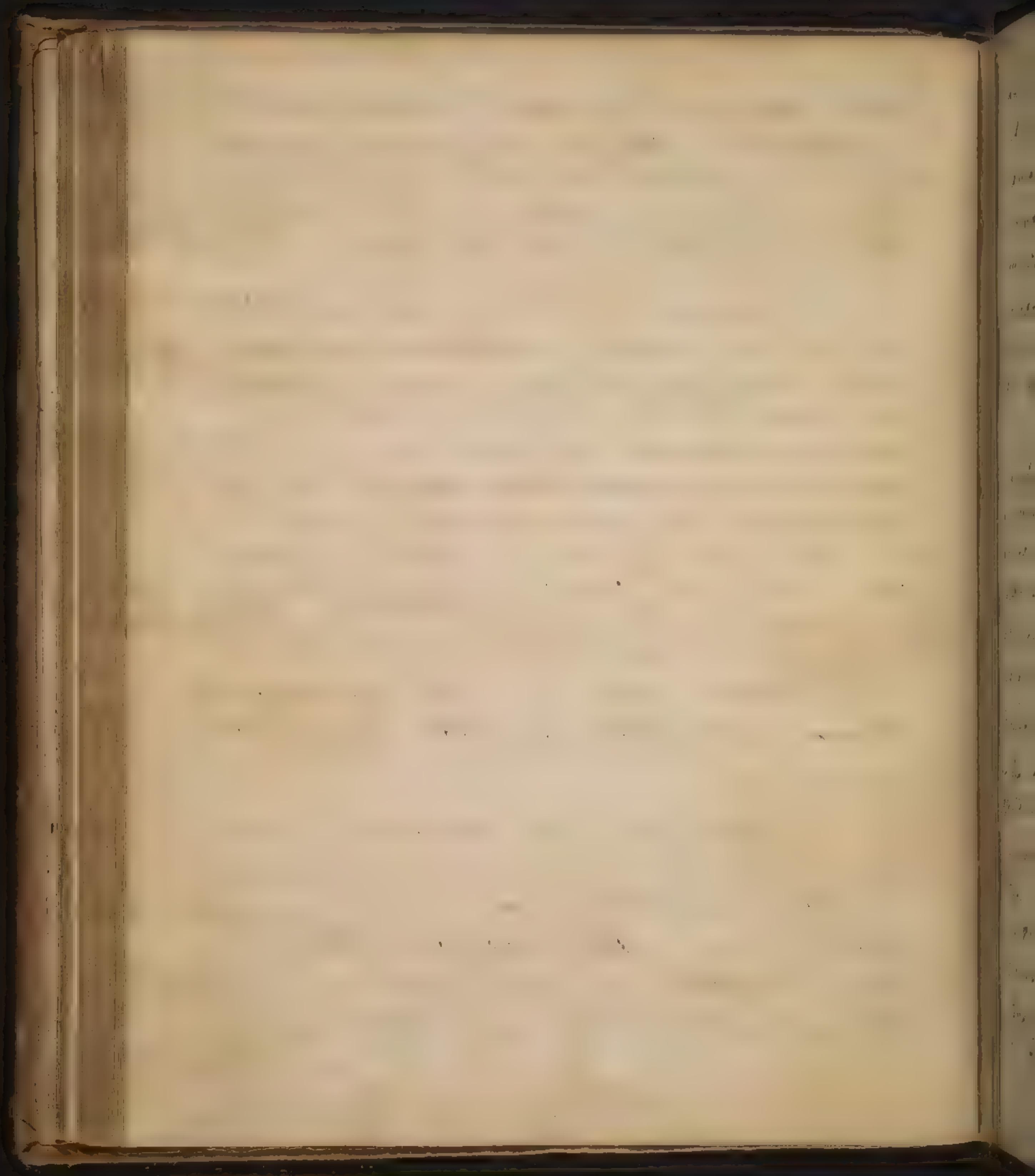
You would imagine that the higher apart  
-ment would be easily distinguished; but we cannot with  
-out difficulty say what number of division they may  
admit of - The last and, or what we have in view in  
method, is to distinguish accurately the Genus and species.  
We generally distinguish the species by the name of the  
genus and the specific differences - Thus in the character  
of the species of the fallow Deer, naturally first take the  
name of the Genus (Cervus) supposing it already defined;  
and then recount the marks by which it is distinguish  
ed from all other species - They do not admit in the cha  
-racter of a species even the name of the Order, &c. &c.  
be



because they are already supposed to be plainly and <sup>57</sup> ~~clearly~~ distinguished in the mind - But a species is never clearly and ~~clearly~~ <sup>distinctly</sup> distinguished and defined, unless the Class, Order, and Genus are all taken in - and next is mentioned the distinction from the other species -

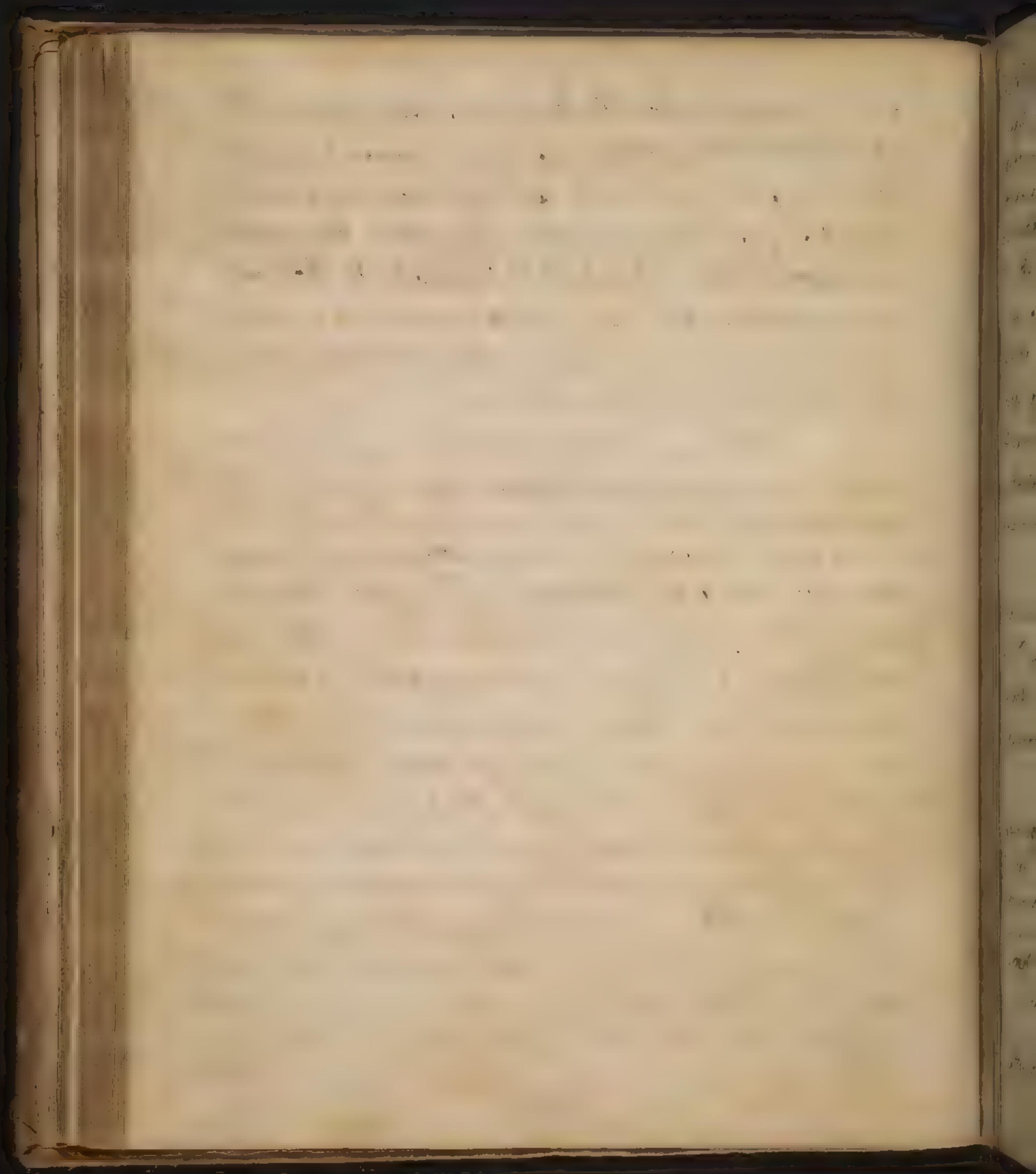
This applied to animals is called a methodical division... and to dispose a Methodical *Nosologia* - method has been very useful to us in ascertaining the various the various productions of Nature - So I may state which I shall give an example - at present upwards of 10,000 different plants are known to the botanists - Now suppose a plant I am unacquainted with is presented to me, and I desire to find out what it is - Without assistance from method I could come at the knowledge of it only by comparing it with the descriptions that have been of each of the Ten thousand; but this would be an immense labour which no one would soon undertake. Whereas by the assistance of method I can find it out much easier -

First, supposing the whole 10,000 plants are divided into 20 classes, by ascertaining the class to which the plant in hand belongs, I at once reduce my enquiry to about 500 only - Next supposing this class to be divided into 5 orders, by ascertaining the Order I reduce the number to about 100 - and lastly by carrying on



on my investigation to the Genus, and discovering  
it; I have now, perhaps, only ten species to search  
among for my Plant; and by examining the de-  
scriptions or Specific differences of these, I presently  
see what it is. But if it is what Authors call  
a non-evident, I soon find this also; and then the bet-  
ter, as I can now add a species to the plants already known,  
and also distinguish it from them.

But in Quadrupeds there is not so great a  
variety as in plants, and therefore there is not so great  
a necessity for method in distinguishing them; for there  
are not as yet discovered in the whole face of the Earth  
above 280 species of Quadrupeds. M<sup>r</sup> Buffon therefore  
rails at the introduction of method, and says that Linnaean  
work, by which he has got much reputation, is altogether  
trifling, useless, and Pedantic; for the human mind could  
easily contain so small a number of species without the  
assistance of method. But I insist that even here method  
is useful, so far as it makes us more accurate in our distinc-  
tions - according we have at present a dispute prevailing,  
whether the Elk is a ruminating animal, and whether  
"Caruncula Gutturalis" is a mark by which it may be dis-  
tinguished; which would never have been a dispute, if our  
distinctions have been so accurate, if we had never



introduced method in this part of Natural History -  
I shall here add one more Observation on that subject. Many  
persons make a subtle distinction of method, and say that  
it can apply to animals and vegetables only; or with of the  
productions of Nature as live and propagate their species;  
But that it must not be applied to Minerals. This Observa-  
tion, or rather Distinction, is of too subtle a nature to be  
discussed here, as it would require a more thorough know-  
ledge of natural bodies than at present I can suppose you  
to have; therefore, I shall only say concerning it, that our  
distinctions even of Minerals have been much more accurate  
since method was introduced to assist us in distinguishing them.

In like manner, with regard to diseases, I will  
not speak so confidently of their uniformity and regularity  
as Dr. Gauvain does, yet I will assert, that method has been  
highly useful in making our distinctions of them more  
accurate and precise.

For this purpose, then, I have here given you  
four different methods, which are proposed with other New-  
I dare say, that at present, then, as many of you, will be  
as unacquainted and unintelligible as the Figures in Euclid would  
be to a Child. But though they may appear so at present  
don't be afraid; for by diligent perusal and strict attention,  
we shall certainly be able to understand them at last.

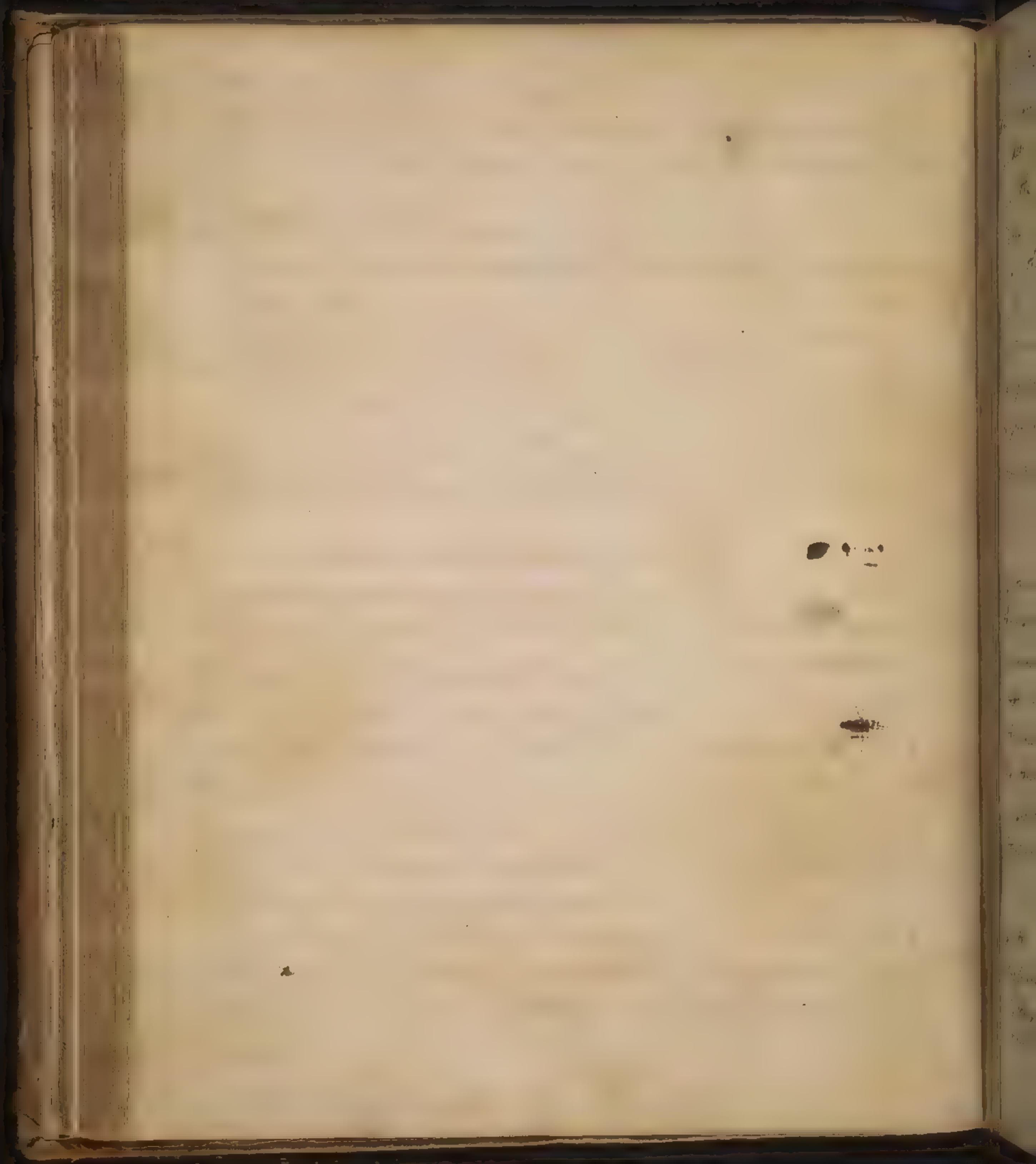
If Gentlemen are in so great a hurry, and proceed  
faster than they ought, they will probably commit considerable  
errors



Error: But as we proceed gradually from one thing to another, there is no danger but that in due time we shall come to understand both the nature and utility of a system in this place. - <sup>53</sup>

Having given you a general Idea of Method, I am now to proceed to the Consideration of Nosology in particular. For this purpose I have given you four Systems of Methodical Nosology, each of which I would have you consider separately by itself. I would have you first consider the Clases of each System separately. Then the Orders - and afterwards compare the four together, i.e., the Clases of one system to the Clases of the other; and the Orders to the Orders.

I have in the fourth part, which is my own System, given you the Synonymies of all the others three, annexed to the terms which I have used. Where you see no synonymies used, you are to understand that there are no terms to be found in any of the other systems which answer to the one I have used; and that neither of the three authors, and any term, a synonymous sense, but that such member of our system is altogether new and introduced by myself. Thus in the second Class, Nervous, there are not ~~no~~ <sup>14</sup> non-  
-ini annexed, because neither of these authors have any term of the same signification. I indeed have given as a synonyme the term *Nervini*, which occurs in Linnaeus; or I might have and it instead of the one I have chosen, but

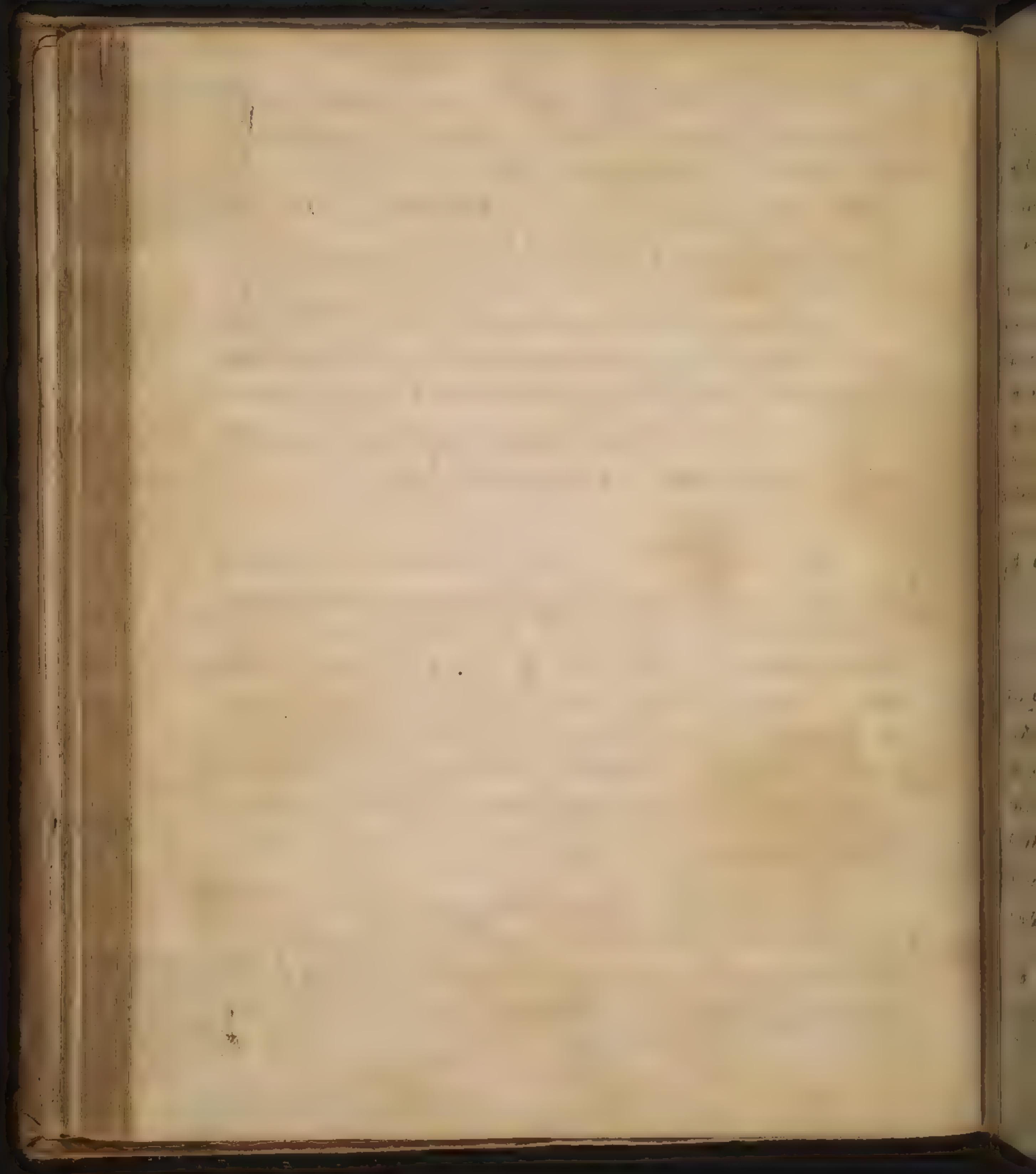


but I did not for fear of confounding my meaning with  
the common idea of Nervous fevers. In most other  
places, however, of our system there are synonomies. Thus  
in the orders synonymous to Comata we have the  
Term Soporaci of Linnaeus, &c. In the next place I give  
you the synonomies of Stahl, Boerhaave and Hoffman,  
with references to their works, as I told you that then three  
systems of physic were that generally prevailed in Europe  
at present: and I imagine that will be of great use  
to you, as it will direct you to the chief reading on the  
several subjects that will be of use to you.

I shall make one more remark on this part  
of the work, with a view to correct any error that has crept  
through the whole of it, as to the references made to  
Junker's tables. I find, since the work has been printed off,  
that in these references there is generally an error as to  
the number by which they are made. It was owing  
to there being two editions of the Book, one having a  
single table more than the other, so that for the most  
part there is an error in the references of one number to another.

In the Index I have given you all the names  
of the Genera that are used in either of the systems, with  
the references made by the number of the Genus & the  
systems of Lavalier, Linnaeus, Vogelius, and my own.  
This is the fourth part of the Work.

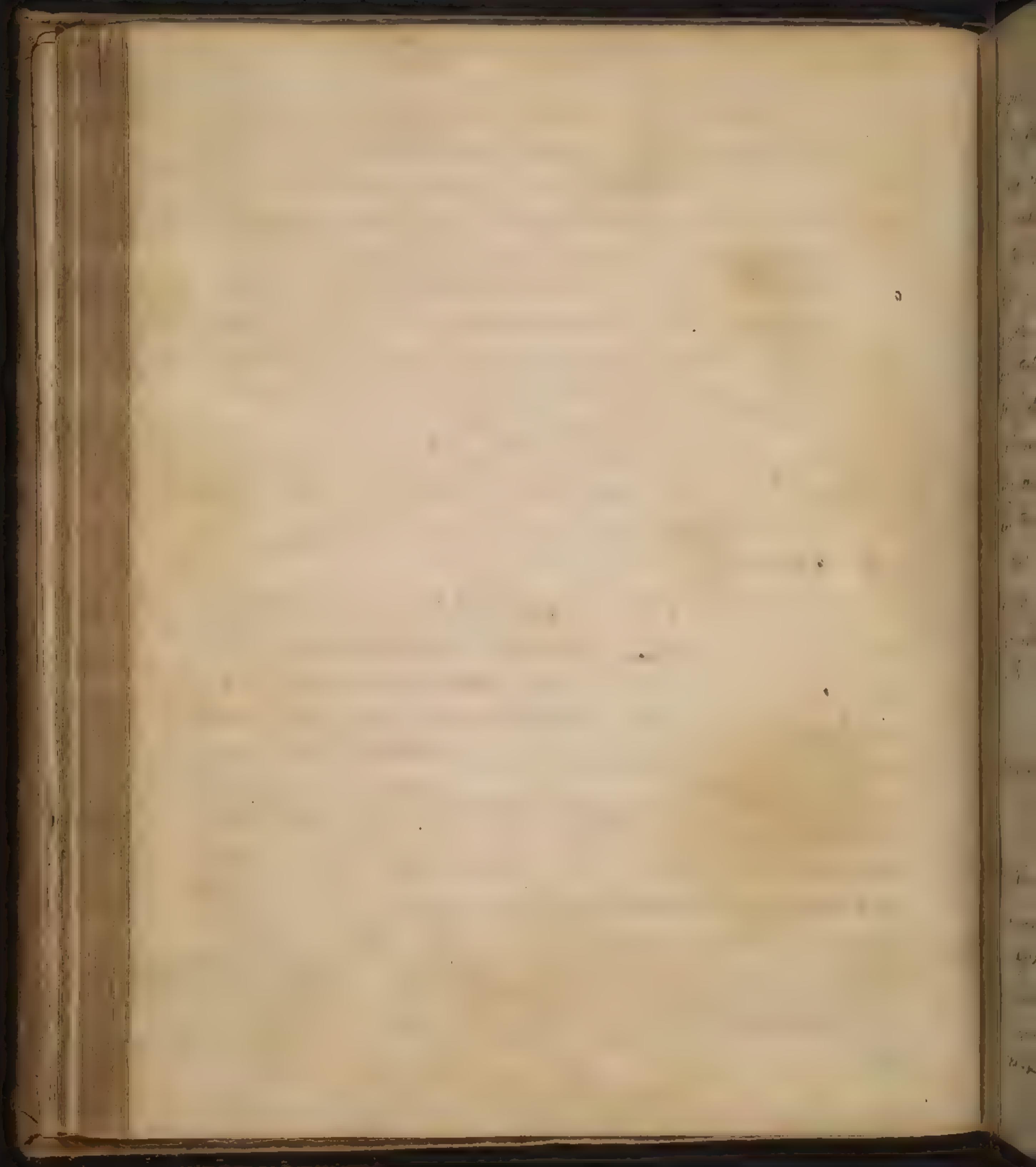
In



In numbering the Genera, everyone except that of Savages, begins with one, and that (all the first Genera of the first Class,) and proceeds on in the number to the end, so as to contain the whole of the Genera in one number. But Savages begins his number anew at the beginning of every Class, so that he includes altogether the genera of one only. But for sake of convenience in my references, I have included all his genera in one number (as is done in the other systems), and have placed this on the Margin in the small Arabic Character opposite to his own number of the genera of the particular Class, which is expressed in the Roman numeral character. By this Index you will at once see what place every name of a genus has in each of the systems.

I now observe you that in using these systems, you are to pay particular attention to every thing you see in them; for there is not a word expressed that has not a particular meaning. And whenever you see a word left out by one author, which is mentioned by another, you may be sure that it was because the latter had some particular view in it, which the other had not. And whenever one adds a word that is omitted, he certainly had some intention in doing it. Now it is your business in every case of this kind, I hope there is disparity in the systems, to find out the reason of it. For example Savages and Linnaeus have divided the Class of Fevers into Intermittents, Remittents, and Continuous. But in

Savages

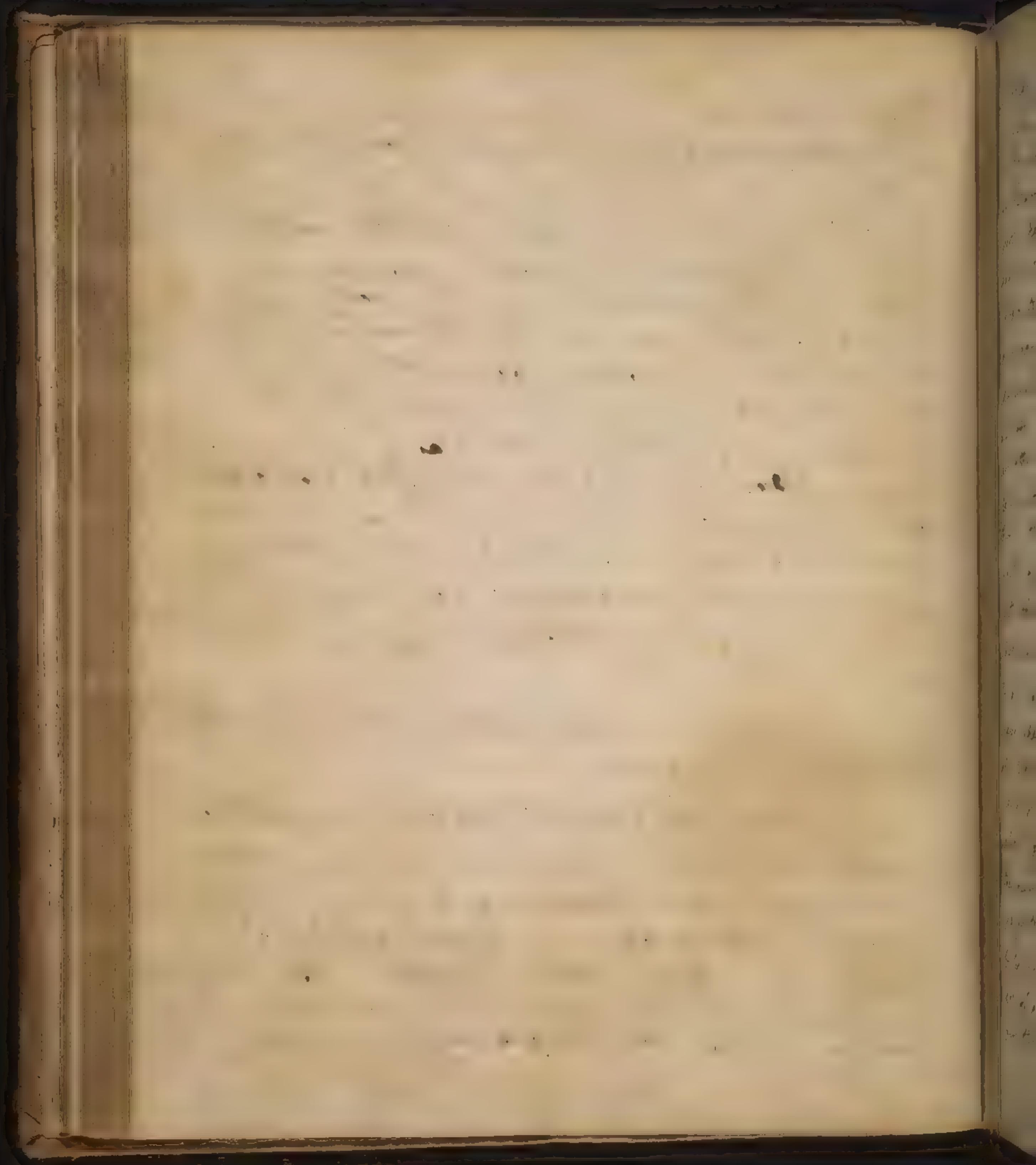


56

Vogel's system and my own you will find Fevers divided  
into Intermittents and Continents. Now the Remittents  
which have been so much taken notice of by authors,  
are certainly some where in Nature: what then has become  
of them, and why are they omitted in these two systems?  
Vogel will tell you that no such thing really exists as  
a purely continuous fever, but that they are all remittent,  
and that there is no occasion for multiplying divisions -  
and if you look among the Intermittents of the fourth  
part you will find them mentioned as synonimes, not  
only the Remittents, but also the Perpetuals of Savages,  
and the Exacerbantes of Linnaeus; the reason of which  
is that I consider the Remittents as Intermittents. To  
discuss this matter further would lead us to very exten-  
sive and important Pathological Inquiries, which are  
not to be entered on here.

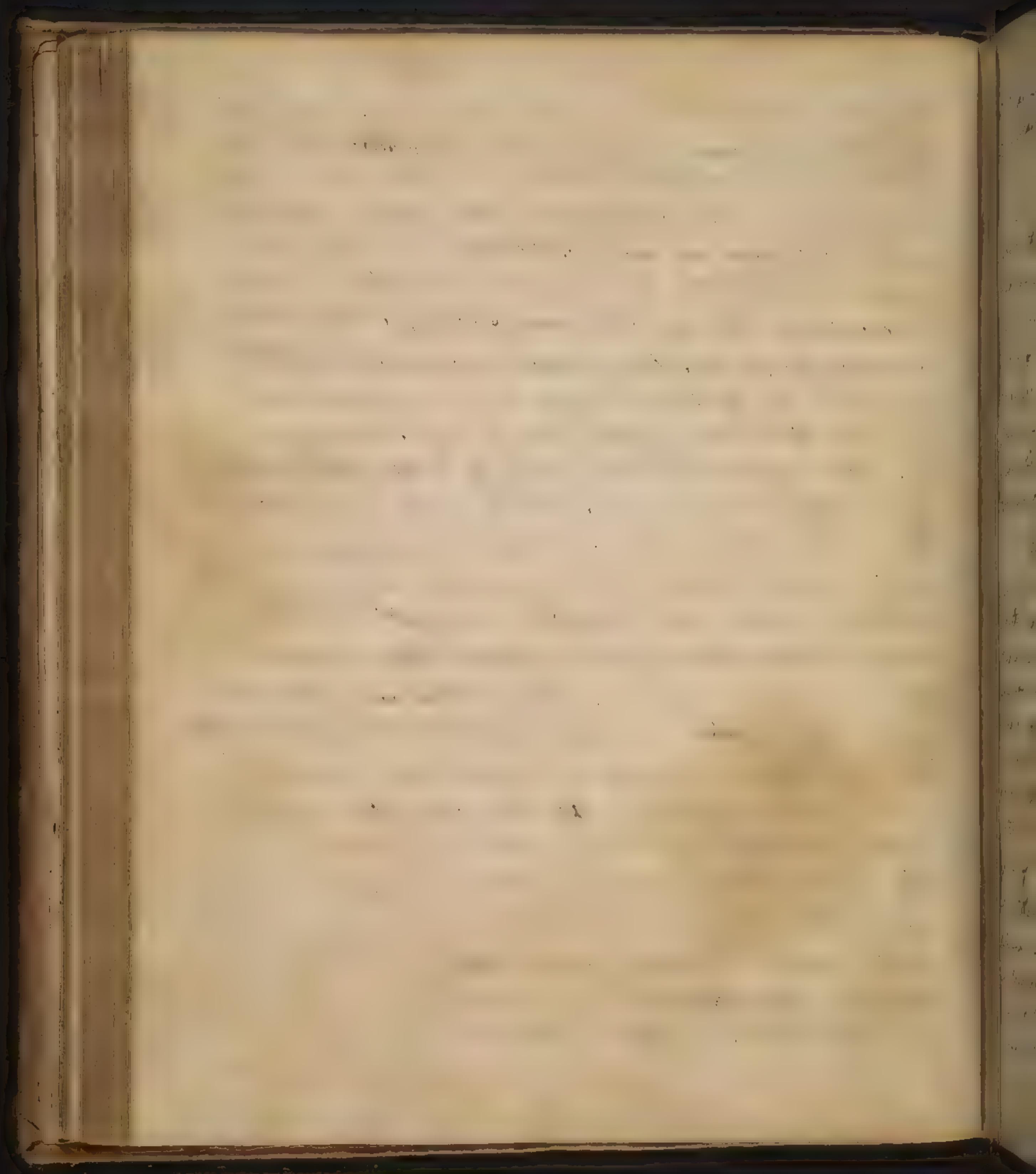
I must now dismiss the subject with a few  
Nosological remarks.

First, in an attempt to Nosologia we ought to  
certain what are to be taken in as Genera of disease.  
For my part, I think whatever can be properly considered  
as disease should be taken in. Several Pathological writers,  
as Sydenham, Morton, Hoffman, Pringle, &c. have given  
us excellent characters of certain Diseases, but, as I  
told you, they have touched a few particulars only; there



Whereas we want the same light thrown upon all diseases, to enable us to form as system that will comprehend the whole, and give distinct characters of them all. To give an example. The Naturalists in the division of Quadrupeds, have given an order of Pecora. Now if we were acquainted with the animals of Europe only, we might characterize them by their having horns (as was actually once done): But after we became acquainted with the animals of Africa and Asia, here we find the Camel and the Musk-Deer, which have no horns, but agree in all other respects with the Pecora of Europe, and are therefore without any scruple included in the order amongst them. Hence, then, it appears that we cannot give the character of particulars with accuracy, till we are acquainted with the whole. and therefore we ought to ascertain what are to be taken into our system before we proceed in a nosological system none but what are proper diseases should be taken in. and it will be found that almost all Vogels numerous class of deformities, are not diseases properly speaking; for he includes here every deviation from the most exact standard of perfection in the human body. But most of these, though they are imperfections, and give some slight inconveniency, are not to be recorded as diseases; or, at least, if they are so they are of a very slight kind, and such as may very well be omitted from a system. Savages and animals have

also



58

also, as well as Vogel, in like manner for the definition of Dipsas, and gone into the same error.

Moreover, all three of them have needlessly mul-  
tiplied the number of genera, in reckoning as diseases what  
ought only to be considered as symptoms. Indeed each of their  
systems is more properly a perfect Symptomatology than a  
System of Nosologia. For example, the Purpura, Thigot, and  
50 or 100 more of their Genera never occur as diseases by them-  
selves, but are only symptoms, belonging to other diseases, as  
fevers, &c. Therefore all such should be left out of the  
number of Genera.

Wherever it is necessary to give a discussion con-  
cerning any point that admits of doubt, with us to ascertain  
whether a genus is to be omitted or received in our system,  
I have introduced a note to that purpose, to signify that such a  
discussion is necessary. Thus in Page 257. ~~which~~ referred to the Thetic,  
I have said "Effectuum omnem symptomatique censimus,"  
by which I mean that I do not look upon the Thetic as a  
proper Genus, and shall give a discussion with regard to it here-  
after. The same thing you will see in Page 270. of the Pur-  
pura of Savages and Petechiae of Linous, at the end of the  
Exanthemata. also of the Hemorrhagia, Page 272; and  
whewin near the end of 275, 276, at the end of 283, and lastly  
in Page 286. Here however it is not with some difference, I  
say "Vel species vel omnino symptomatique est, Meteorif-  
icus, Savages -



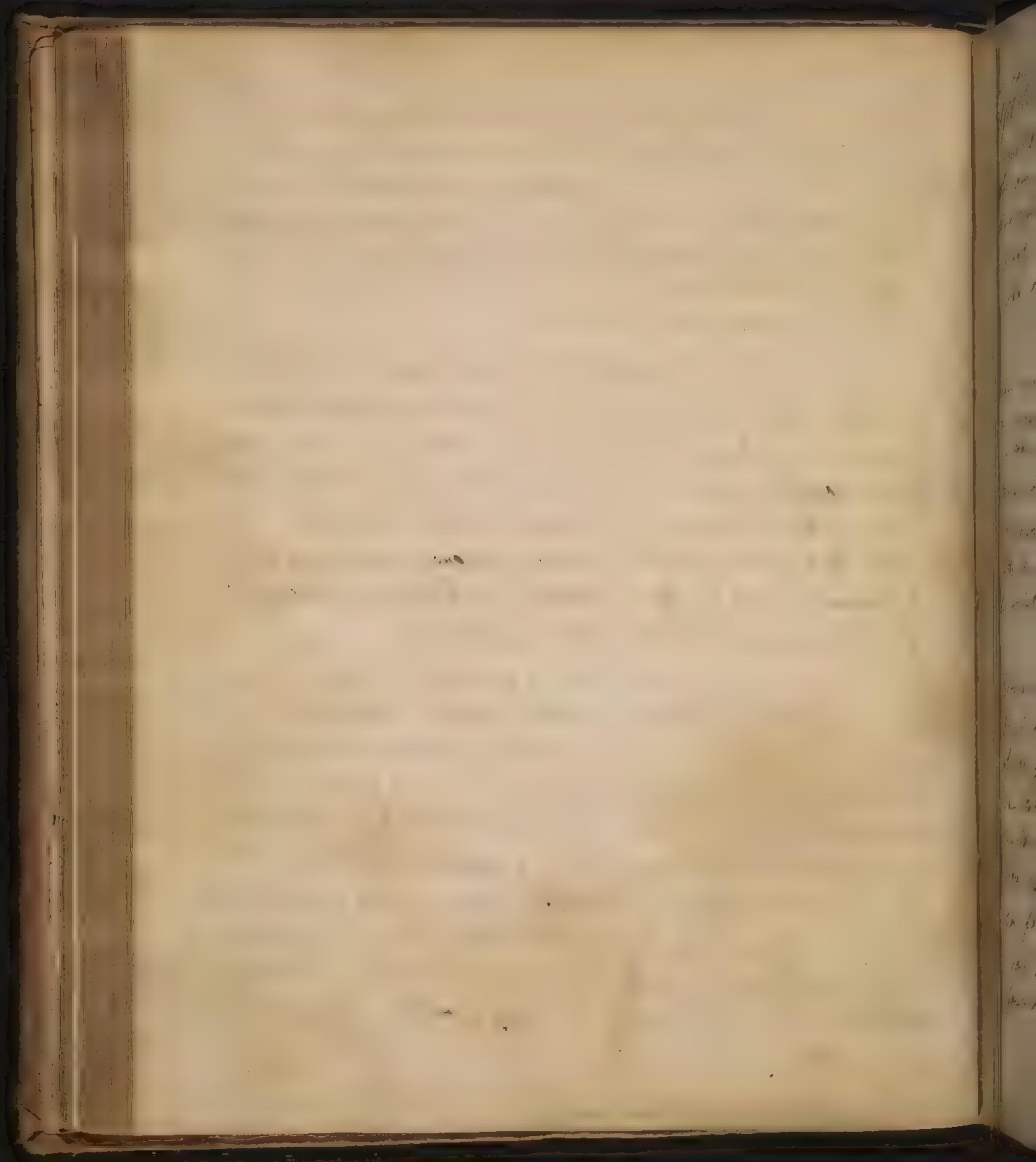
59.

I shall hereafter discuss the Pathological Questions  
fully, and give the reason why those which I have mentioned are  
not admitted as genera. I must observe too that after two very  
remarkable genera, the *Dyspepsia* and *Hypochondriasis*, Page  
276, I once had resolved to put down a list of a number of Sym-  
ptoms, that are mentioned by others as Species, but which stood  
upon no symptoms of the Disease.

I here go further, and remark that in Nosology  
even the distinction of genera and species is often a matter  
of some nicety, & nice to be discussed here. However on this I have  
often hazarded my Opinion. Thus in Page 275. see the Synoni-  
mies of the *Festiana*. Here many which Savages and the  
rest have made separate genera, I reckon species of the  
*Festiana*. Such as the <sup>6</sup>*Duplicana* of *Linnaeus* *Trichophyes*  
of Savages, *Festiana duplex* of Vogel. &c.

I go on to remark that I consider as other faults of  
these authors in reckoning these genera. There are some by  
case that consist of a series of circumstances, one state being  
the consequence of another, and never occurring unless this other  
has proceeded, as in the case of Inflammation and abscess. Then  
one exceeds the other, and it is a question whether they  
are to be considered as separate genera. In a practical  
course, such as ours, we are under the necessity of considering  
them together; for in the way of treating them they cannot  
be separated. But see, in Page 259 of the Synopsis, how

we

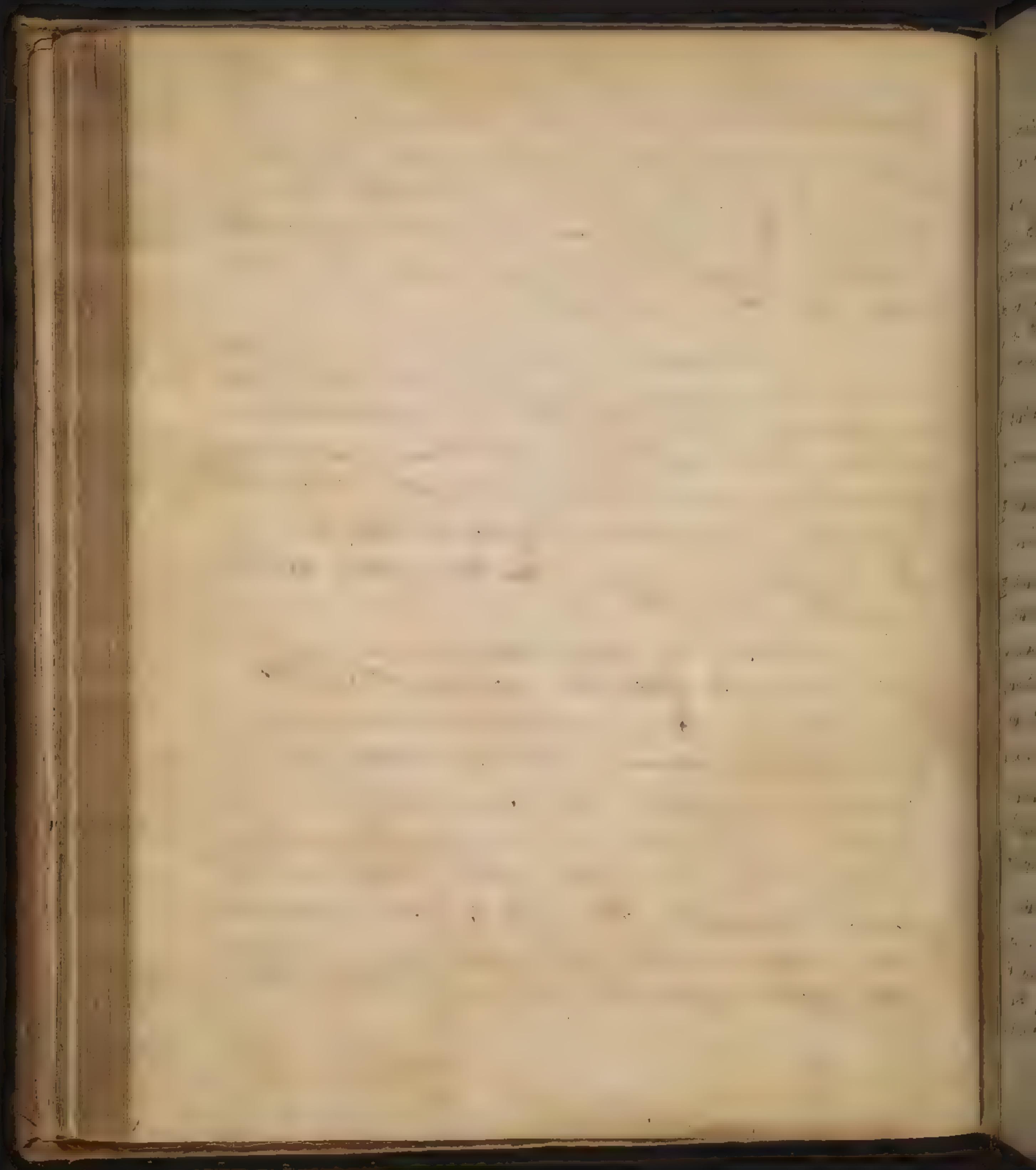


we have managed them - Here I say "Phlegmones sequela<sup>60.</sup> ~~ant~~  
Apostemal," &c reckoning after Casp under the name of  
sequela or conseqneuce of certain diseases. You will see  
the same thing in Peripneumonia and Pleuritis Page 261 -  
And besides them, in 271. I have said under "Hemoptysis" "Hem-  
optysis sequela Phthisis, & which I have given no other  
place than this in my system -

These authors have also reckoned several genera that  
have never been properly distinguished, but are only theoretical  
or imaginary - Of which there are many instances to be found  
in their systems; and Vogel in his *Pancreatic* (Genera 61.)  
though he can give no character, but is obliged to say "Noto  
deficiunt," yet admits it as a genus: and there are many  
other, to be found in every one of these three systems, that less  
be no better distinguished -

Thus in my system I have given so many fewer  
genera than either of the others; for you will find that  
Vogel has given 500, and Savaugh and Linnaeus upwards  
of 300 genera; whereas in all I have but 132, and yet  
have taken in almost all that they do, either synonimes or  
sequela, &c - and in this we see a very evident use of our  
Index, viz. to show which of their genera I have received, and  
how far I have placed them in the 4<sup>th</sup> part: in short, to  
show at once under the name of each genus, how the  
four different systems stand with respect to one another -

Fam



61.

I am sorry to detain you from the business of more immediate and application, I mean the consideration of particular diseases. I have thought it proper to engage you in the study of Nosology, and want especially to inculcate that all questions that occur in the medical Nosology are actually pathological questions of considerable importance - and therefore the most part would not be made questions, if it were not with a view to method - such were several of the inquiries we hinted at yesterday, as

I. What among fevers were to be admitted as Genera, and what to be reckoned only as symptoms of them.

II. What in many cases are to be enumerated as symptoms, and what may be looked upon to constitute a Species.

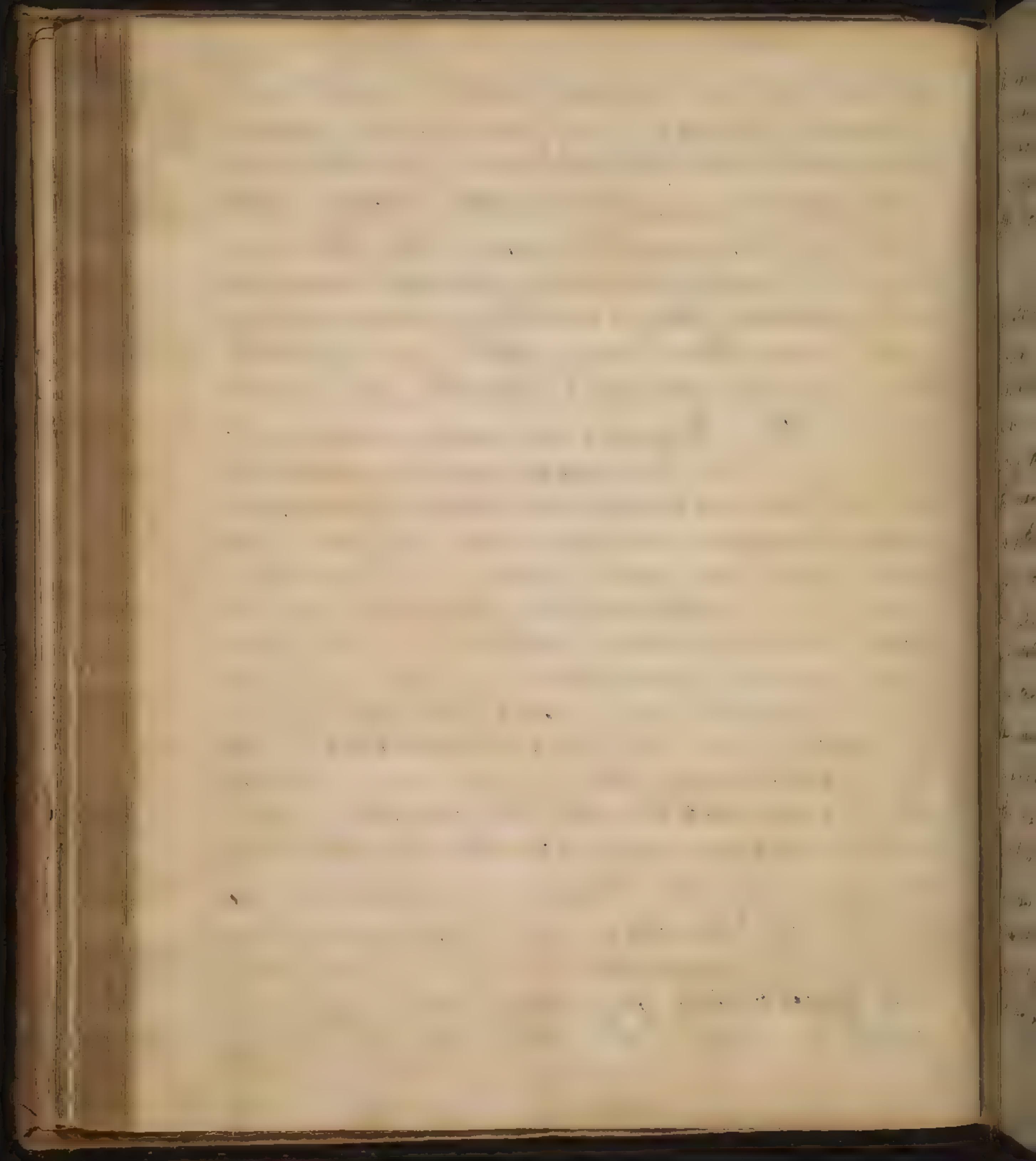
III. What are to be reckoned as Genera, what as species. Also what distinction to be made between the different stages of disease. &c. - and in the next place, in what manner the characters of disease are to be made out in a system of medical Nosology - Here, I say, no theory is to be admitted - and a work of that sort is valuable, wherein it consists of nothing but a collection of medical facts. Now in Savages' *Order of Phymata*, Page 4<sup>th</sup>, there he admits into the characters the term *humorales*; and also his *Experimenta*, Page 6<sup>th</sup>, in characterizing which he says "a solidis admetit". This, I say, is Theory and consequently not to be admitted; for he has here taken into the characters the internal state of the parts, and even gone so far as to ascertain the state of the vessels there - Also Linnaeus is guilty of the same fault, in page



116 - Here he calls Schimhoffs, *Glandula indurata*; and  
*Anchylosis* (Gen. 286.) *Tumor Geniculorum*, & *Synovia*.  
Now both these are even doubtful pieces of Theory, and at any  
rate ought by no means to be admitted in Morology - see like-  
wise page 444. Here you will observe his theory is also wrong.  
For in the *Character* of *Bubo*, he says, "Glandula Conglobata";  
and in *Antthropus* "Glandula Subtunica"; therefore in this ins-  
tance he has fallen into a very palpable error. But with  
Theory, even if just, ought not to be admitted - also in Page 120.

His *Character* of *Algyria* is very improper, and does not  
even give an *Idea* of the affection; for it were not that we  
understood the Greek term, or the Latin one, *pervigilium*,  
which he apprehes, I am sure we should not from the Cha-  
racter he gives know what he meant. But this Linnaeus'  
distinction of the Inflammation of the *Meninges*, and of the *Ence-  
phalon* in his *Phrenetics* and *Squalismus* (in his *Aplogithii*)  
is very improper and incorrect, for the same reason, being a distinc-  
tion in Theory only - For, see page 80 where *Vogel* unites the  
two together, in his *Phrenisthus* (in the *Character*). Here  
he says that the distinguishing symptoms are very ambiguous;  
and if so when both are united, the distinguishing Marks  
will be much more ambiguous when we attempt to make  
two Genera out of them - also in his *Hepatitis* and *Sple-  
nitis*, &c, the *Characters* are very imperfect; for then cannot  
be distinguished by saying there is a pain in the right or  
left hypochondrion - for in very many Cases even this  
cannot be accurately distinguished - and I have often seen

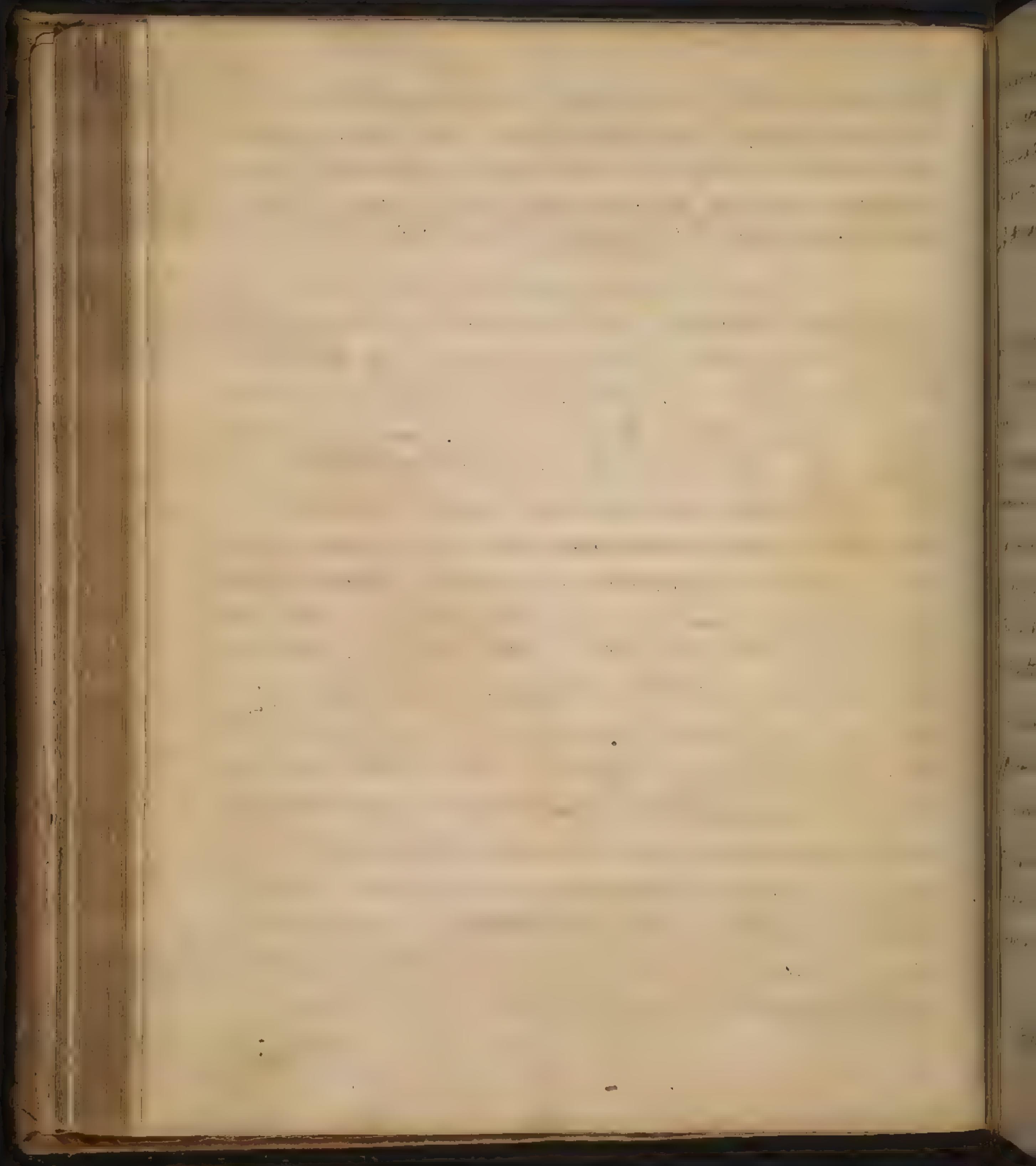
the



the pain judged in one or other of the Hypochondria, and the disease referred to one or other of them, when it was situated in the Colon & therefore it is not altogether excusable to characterize even by them, much less when he says, "Dolor Uteri, Dolor Renis, &c," specifying the particular viscera.

There are other cases where our characters are unquestionable through necessity, viz, where diseases consist of a series of circumstances, and we cannot distinguish them by a character which is constant and runs through the whole disease - as in Intermittent Fevers, where we cannot characterize them till we have seen a repetition of the fit - or the Exanthemata, where must wait for the eruption. &c. - Nor altho' in the Exanthemata certain circumstances often give a strong presumption as to what the disease will turn out, yet we have not marks so absolutely certain as to enable us to establish their character in the beginning of the disease. Here, then, we cannot characterize the genus before we have seen some of the progress of it - This, however is to be avoided as much as possible - But altho' in some cases this is an unavoidable imperfection in our Nosology, yet it is not always so when it occurs in these authors. Thus we have among the characters given by them "Febris" "Galenitifimba &c" - When the disease is distinguished only by the violence or fatality of it - Marks which can be used only after the patient is dead - But I insist

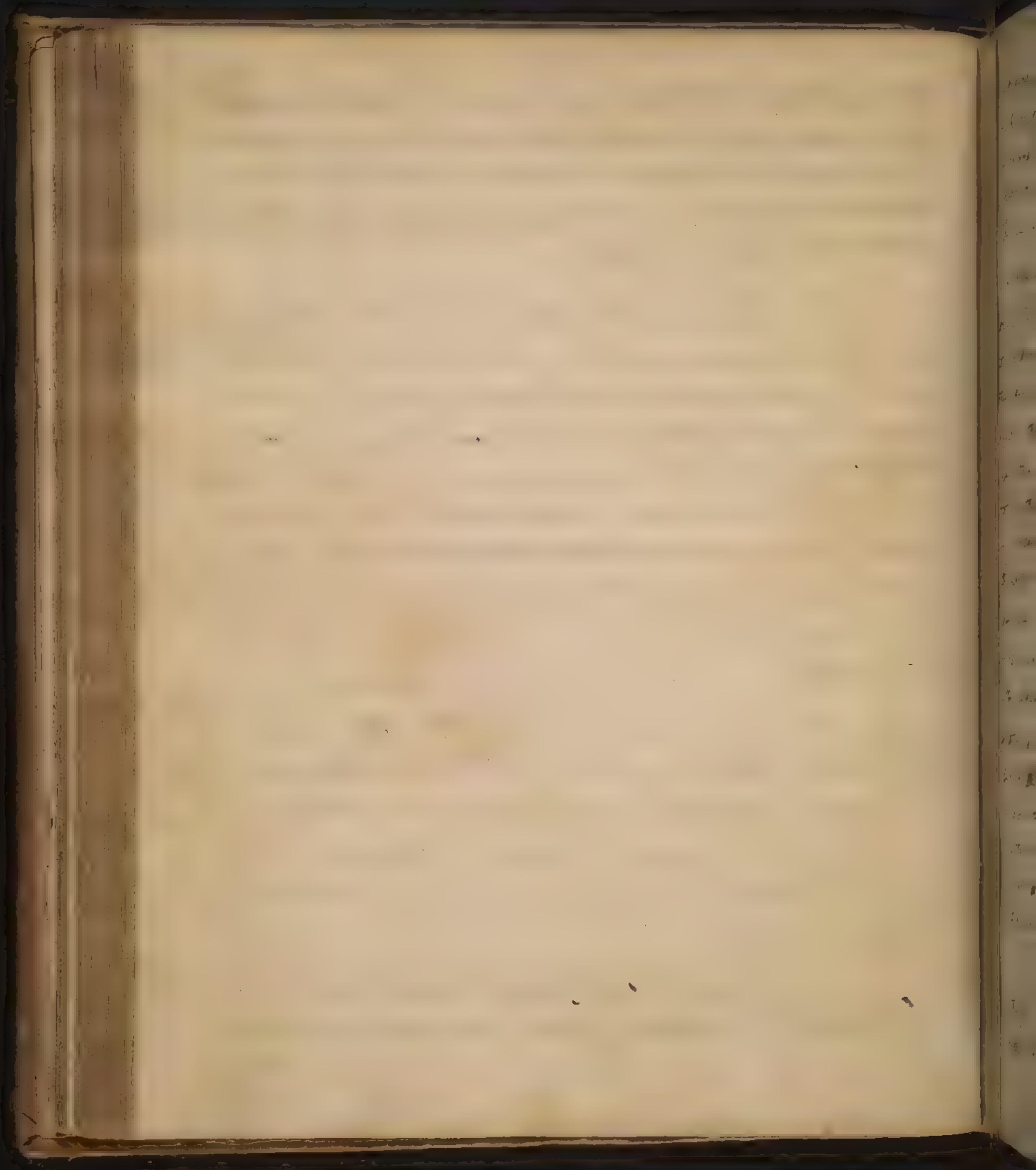
through



through almost the whole of his *Years* (Page 115) has <sup>64.</sup> ~~un~~ given down right Definitions of the sort, which respect only the Germinations of the *diseas*: Thus he says, "intra Septemnam "Unicam determinanda &c" - Sauvages also has often fallen into the same error (Page 22).

I say, then, that *diseas* are to be characterized only by the evident external appearance; and in this do we ought to use such expressions as admit of no Ambiguity - Therefore we object to Vogel's "*Voluptas dolorifica*" and Linnaeus' *Character of the Contraura* (Gen. 238.), as being examples of this - Linnaeus, however, to avoid in some measure this Ambiguity of expression, has by numbers referred to his definitions of his *Terms*, i.e., the names of his *Genera* which he makes use of in characterizing others. Thus in his first *Genus Morta* he refers to his definition of *Phlyctena* in Gen. 273. But there is great Ambiguity in the expressions through out the whole of these three systems - And, indeed in *Nomologia*, nothing is more wanting than a proper *Delenatio Morbi*. Every one acquainted with Botany knows the great use of Linnaeus's *Philosophia Botanica*, in which he explains all the *Terms*, and so gives some precision to the language of the Science.

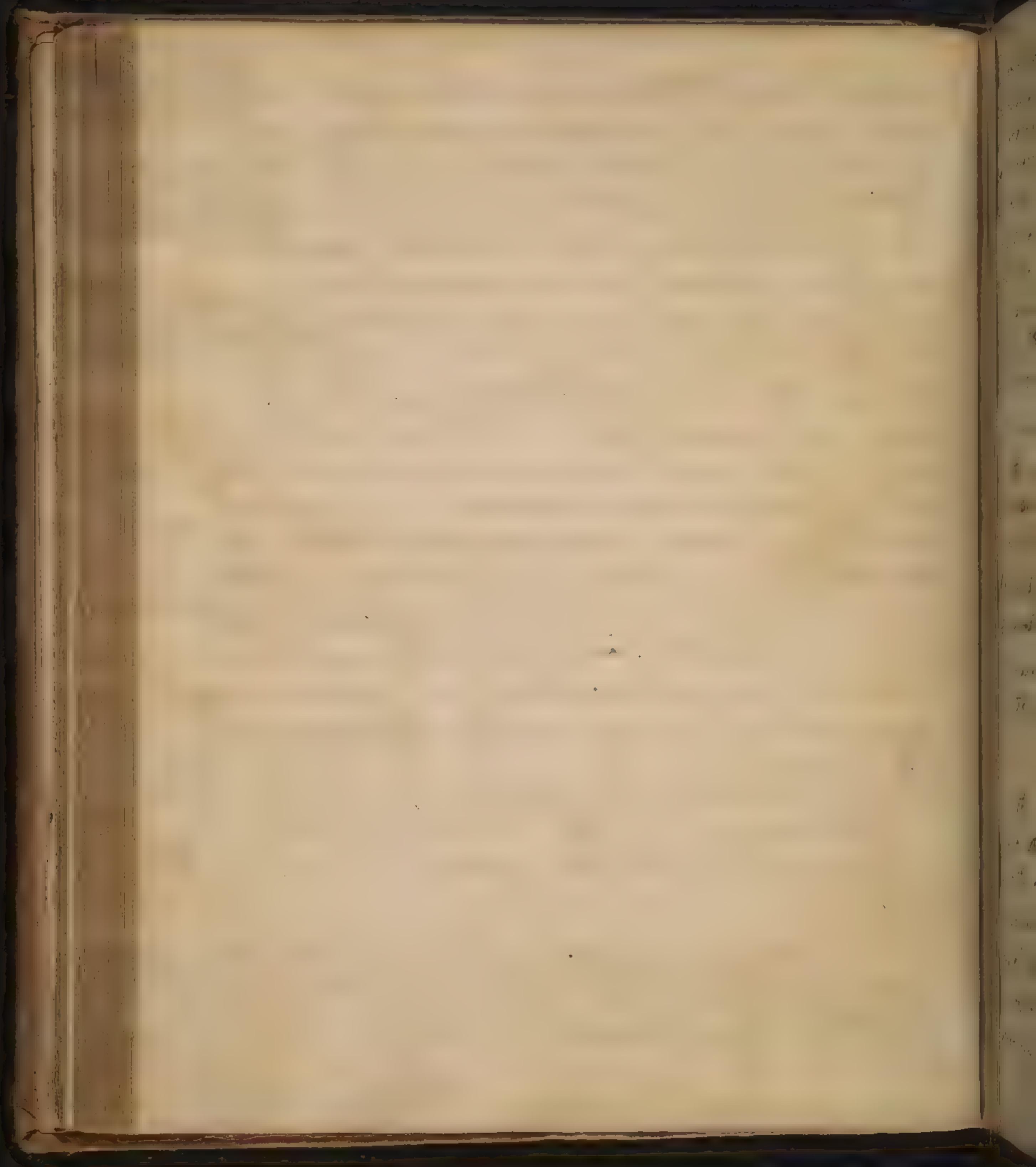
I go on to observe, that in ascertaining our *Genera*, *Orders*, &c, Natural Affinities between the particulars belonging



65.

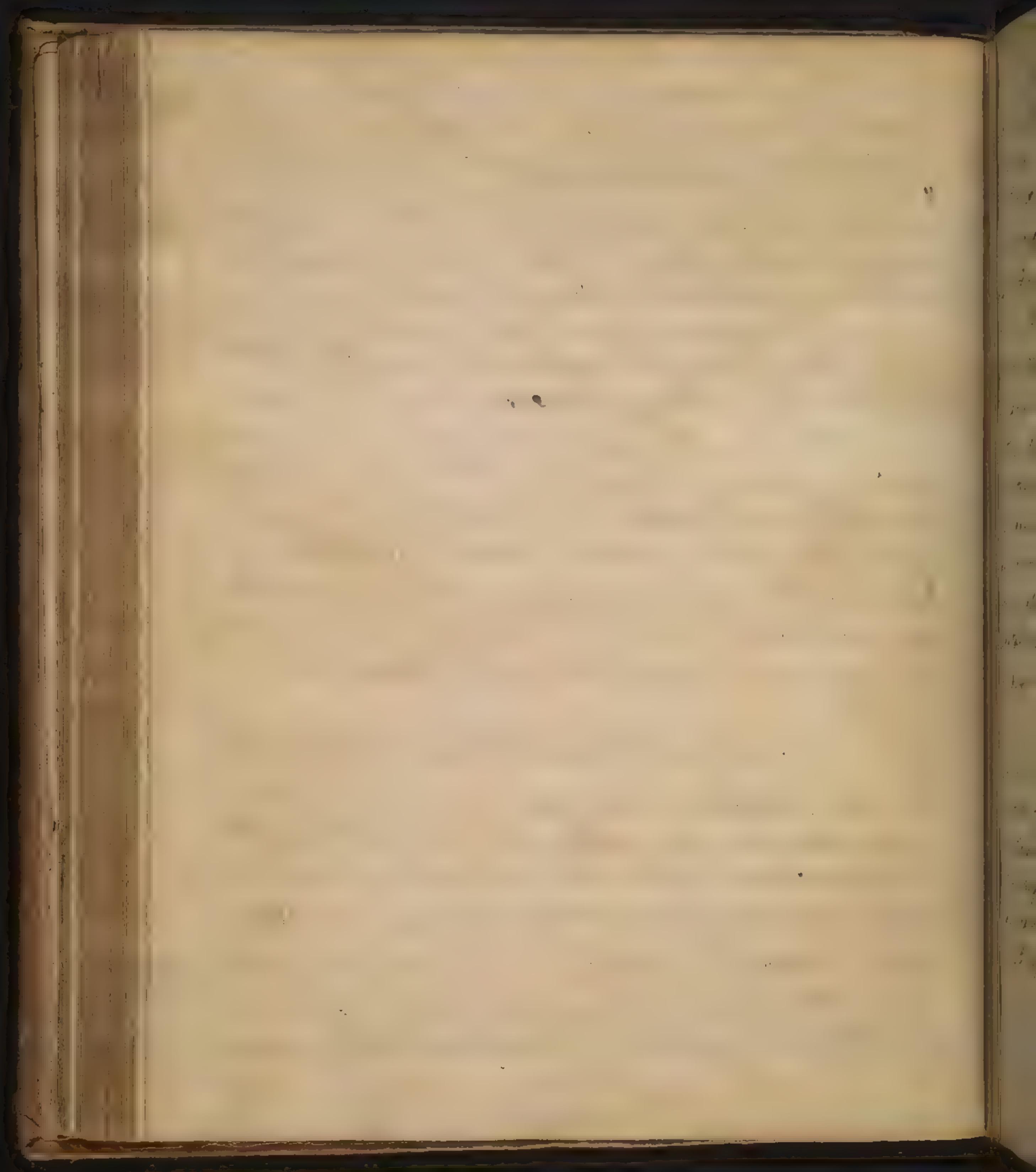
belonging to the same Department, are to be sought after as much as  
much as possible; and all artificial affinities to be diligently avoided.  
Every one uses the use of this in Botany - This indeed is a thing dif-  
ficult in Nosologia; but hitherto it has not been much attended to.  
Thus we find in systems of their Authors the Clap dolores, which  
is entirely an artificial Clap, and is characterized by one symptom  
only - It was indeed their aim, and have pretended to, to exclude from  
it Inflammatory pain; but have not been able to do it, for  
they have taken into it Arthritis, Ophthalmia, &c. whence  
appear the Impropriety of it - But I will go on further, and  
show that the Term Dolor is also a very ambiguous one, and  
that as they have managed it, they make it to comprehend  
every uneasy and painful sensation the body is liable to - I have  
therefore, very properly, I think, avoided this Clap - at the  
same time I am ready own that my Clap Locales is as arti-  
ficial (with respect to the Clap) as any of them; but it becomes  
better when we proceed to the Orders: and this fault is always  
greater as it more or less affects the lower of, or members or mem-  
bers of the Division; for if a natural affinity is observed  
between the particulars arranged together, it is not much  
matter though the Connexion between the parts of a more  
general division, or the higher of, orments be somewhat  
artificial.

I have to add with regard to the Characters, that  
nothing superfluous is to be admitted into them; neither  
should they be deficient; but the full Character  
and



Laid down concisely - as an Example of this fault, <sup>66</sup> *Savages*,  
Character of Phlegmone (Gen. 15) here "Spheroideus" & *monte*  
in *supercrationem* *Savages* is superfluous. This indeed means  
by it means to distinguish the Phlegmone from the *furunculas*; . . .  
which he makes of the *size* of the *Regions*. But there are both  
superfluous Circumstances. In like manner *Savages* in his  
Character of *fistula* (Gen. 71.) makes particular mention of  
A rachitis of the Bone, which is altogether an superfluous &  
and no Practitioner would require this Circumstance to cha-  
racterize it. - Also in Linnaeus's Character of *Syphillis*  
(Gen. 6.), and in Vogel's *Pestilentialis* (Gen. 33.) you will  
in other instances of superfluous Characters - *Savages*  
Character of his *Ascheocelle* (Gen. 111.) "Cystis in Schisto" gives no idea of it. Further his Character of the Order of  
*Ectopis* (Page 9<sup>th</sup>) is improper. Indeed I do not like  
the term, though I have myself made use of the same. But  
the reason was because, at present, I could not find out  
a better.

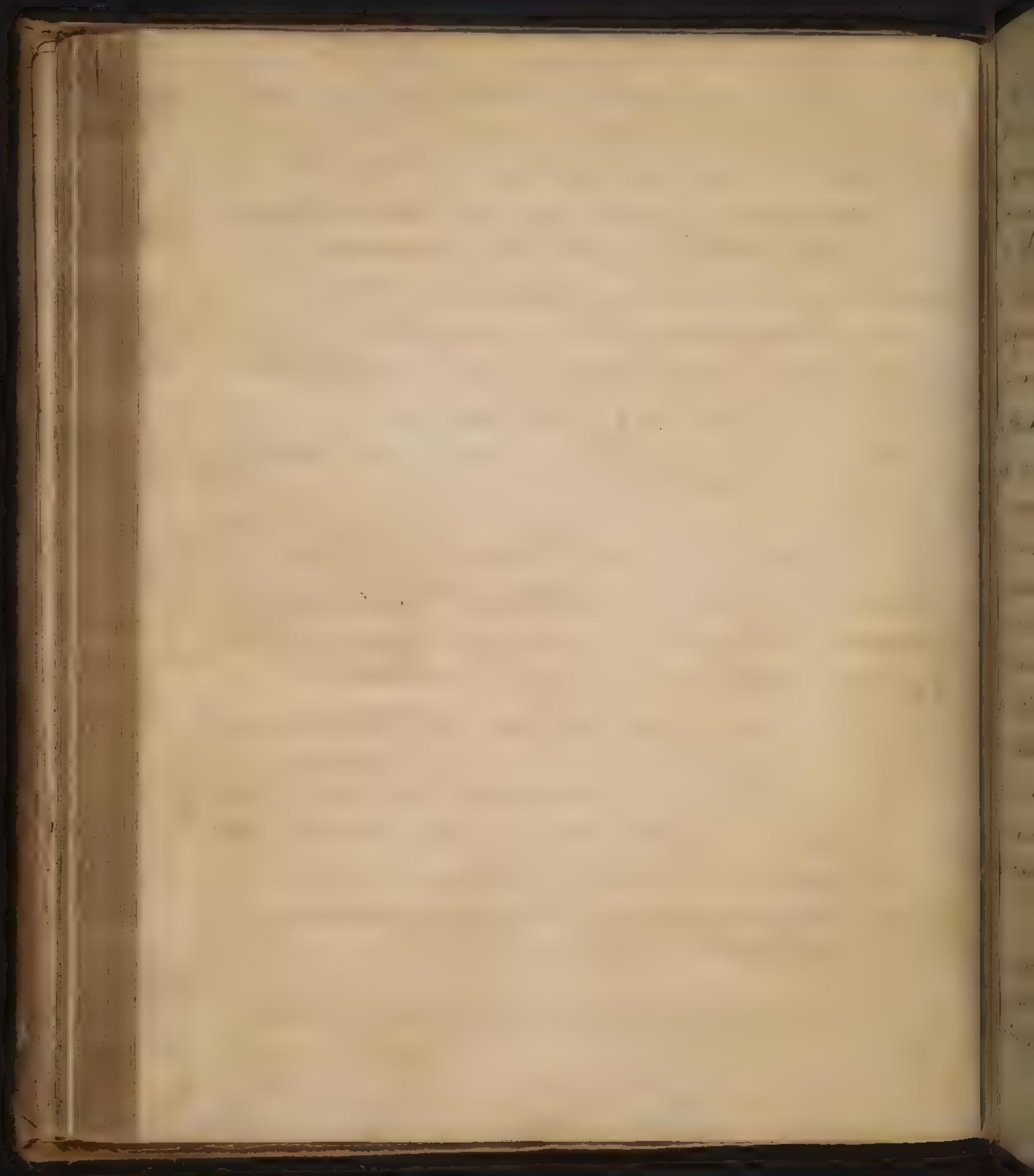
Next for Example of Deficiency of Character  
in the *Miliaris* of *Savages* (Gen. 92.) - Besides  
which there are many others, where the fault is suffi-  
ciently obvious. Slightly take for Examples of deficient  
Characters, the *Gonorrhœa* of *Savages* (Gen. 26 B.)  
and of Linnaeus (Gen. 200.) - But in general the fault  
is the other way; and you will find for the most part a  
proneness for superfluity in Characters and Descriptions.



As to the subject of Denomination or Nomen-<sup>67</sup>  
ature, I refer you for a general Idea of it to the *Physica  
Botanica* of Linneus - and with regard to Physic look into  
the *Prolegomina* of Savages. In a word, I think that, in  
regard ought certainly to be paid to the Nomenclature, i.e. we  
ought to make more of properties. But it should be  
a rule to change as few old names as possible, and more  
few new ones. yet it is necessary where we change the idea  
to change the name also; and this can never be found fault  
with. But I am ashamed here to observe what Pottantry  
our three Authors have been guilty of in this respect,  
and how ridiculously vain they are in endeavouring all they  
can to multiply the number of strange Terms, creating  
genera of symptoms &c, particularly Dr Vogel, who is really  
wanton in this respect, in so much that every time I think  
of him it puts me in mind of Boileau's Petant. Dr -

This finishes the whole of the Preliminaries,  
which I meant to give previous to entering upon the proper  
business of our Journal. When ever you enter upon the study  
of Nosology you will find it requires some labour and atten-  
tion, before you can make any progress in it; and till  
you have some experience in it you will not be able to  
see its application and utility.

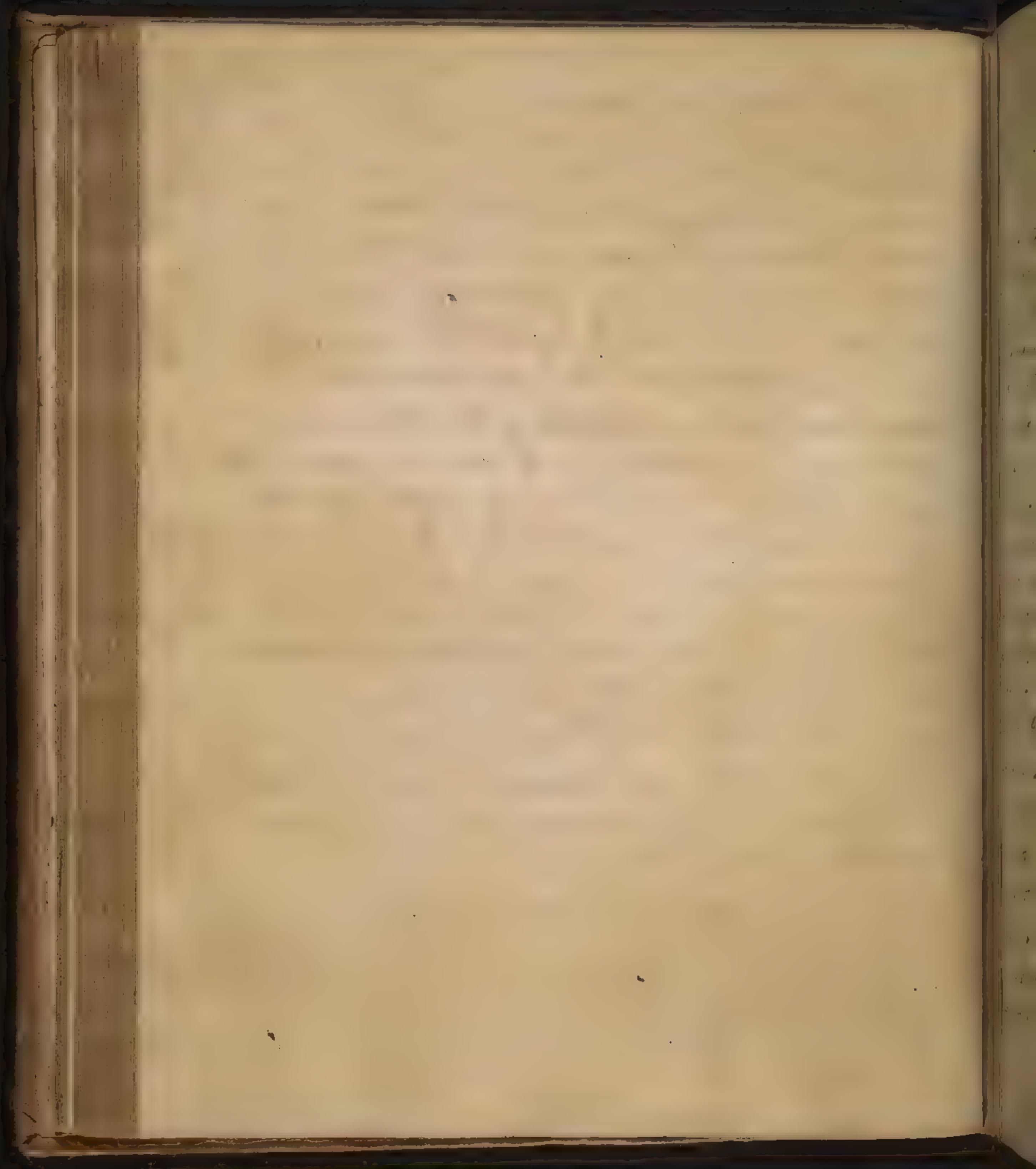
I am, then, to enter more particularly into what  
you



you find in the 21<sup>st</sup> part of our Synopsis - Here I have just made an imaginary division of all Diseases into two heads, The Universal and Local - the former of which Comprehends the three first Classes, and the rest to the latter - I mean by the Universal Diseases such as affect the fundamental and primary Functions of the Body, in which we include fever, which principally affects the Sanguiferous system, as being therefore a Universal disease; and the Apoplexia, which is an affection of the Brain in particular, but the functions of the Brain are amongst the most important and fundamental of the whole Body - Nay, we go further and include under this head any topical Inflammation, which more generally affects the Sanguiferous system, as being, I think, an Universal Disease. But I am not very anxious as to establishing this division. And I observe that but few systems can give such a thing as is called a Clavis Clavium - Sauvages and Vogel, you see, have given none, though Linnaeus has. However ours, in which there are so few Classes, would admit one more readily -

As to the Characters, I think they are not sufficiently obvious: but at any rate the particular description of each of them will come in better in another place.

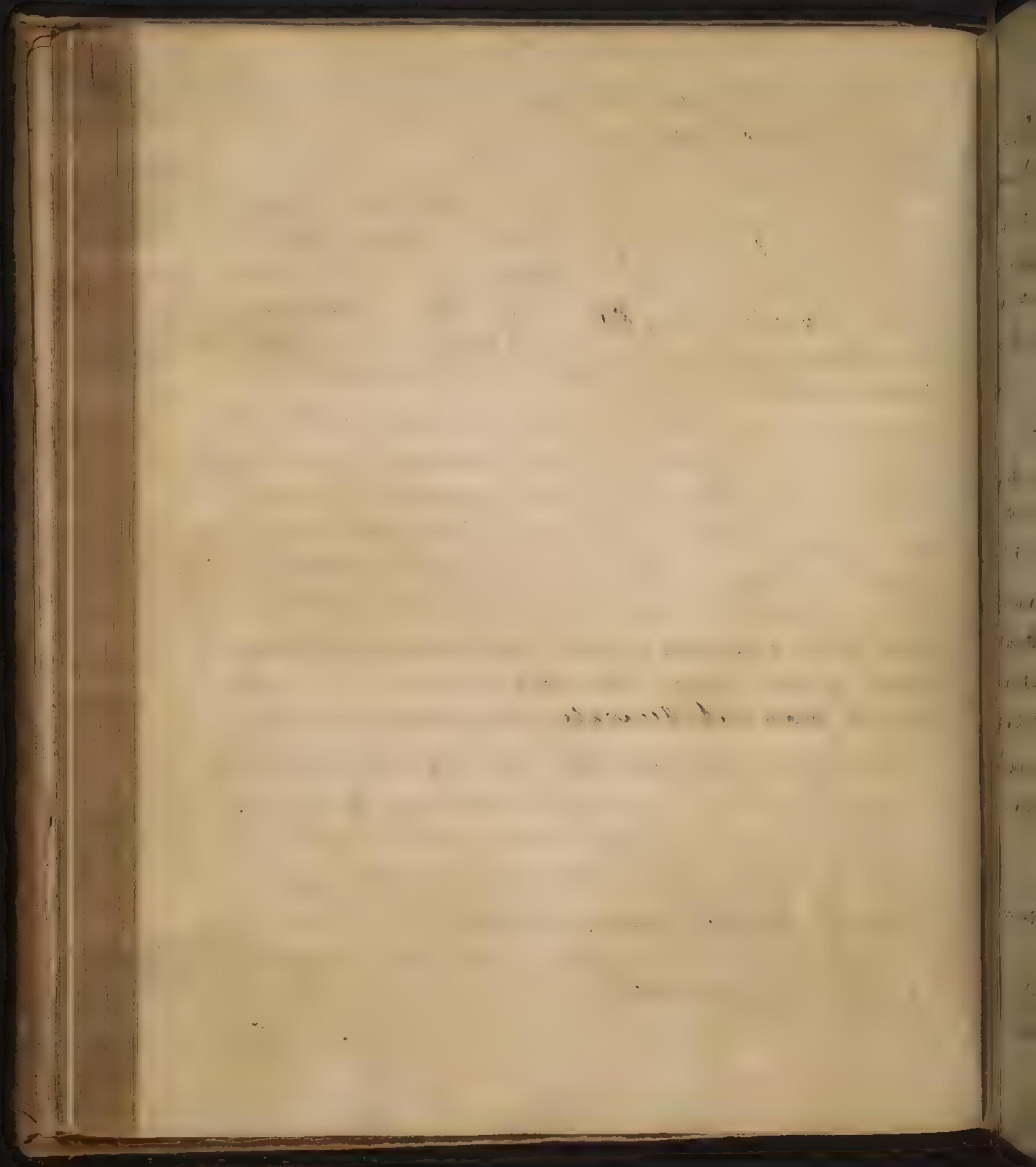
With



With regard to the three Classes of Universal diseases, I shall lay before you what gave me the hint to make such a general division of them -

You know that Pathologists divide the functions of the Body into three heads, the Vital, Animal, and Natural; and this in Pathology gives a like division of the *Functiones Loco*. Now under our head of universal diseases, I would allot a Class to comprehend the affections of each of these sets of functions - and thus our first Class, *Pyrexia*, answers pretty exactly to the vital functions, and so does our second, *Necroses*, to the Animal - However, neither of our three Classes answers perfectly, I mean, are not quite perfect in this respect, or properly united and comprehended with regard to their separate sets of Functions, so that each may exactly comprehend each respectively, especially the third Class, *Cachexia*, which should comprehend the affections of the natural Functions - But here it is impossible to ~~do~~ make with accuracy the function of Nutrition, which is principally concerned in this Class, will in some measure enter into the rest and run through the whole - This, then, is the foundation upon which I proceed in forming this part of my system, viz. establishing these three Classes of Universal Diseases; and altho' it is not quite as accurate, I thought it necessary to throw out this hint for your own consideration -

But



70

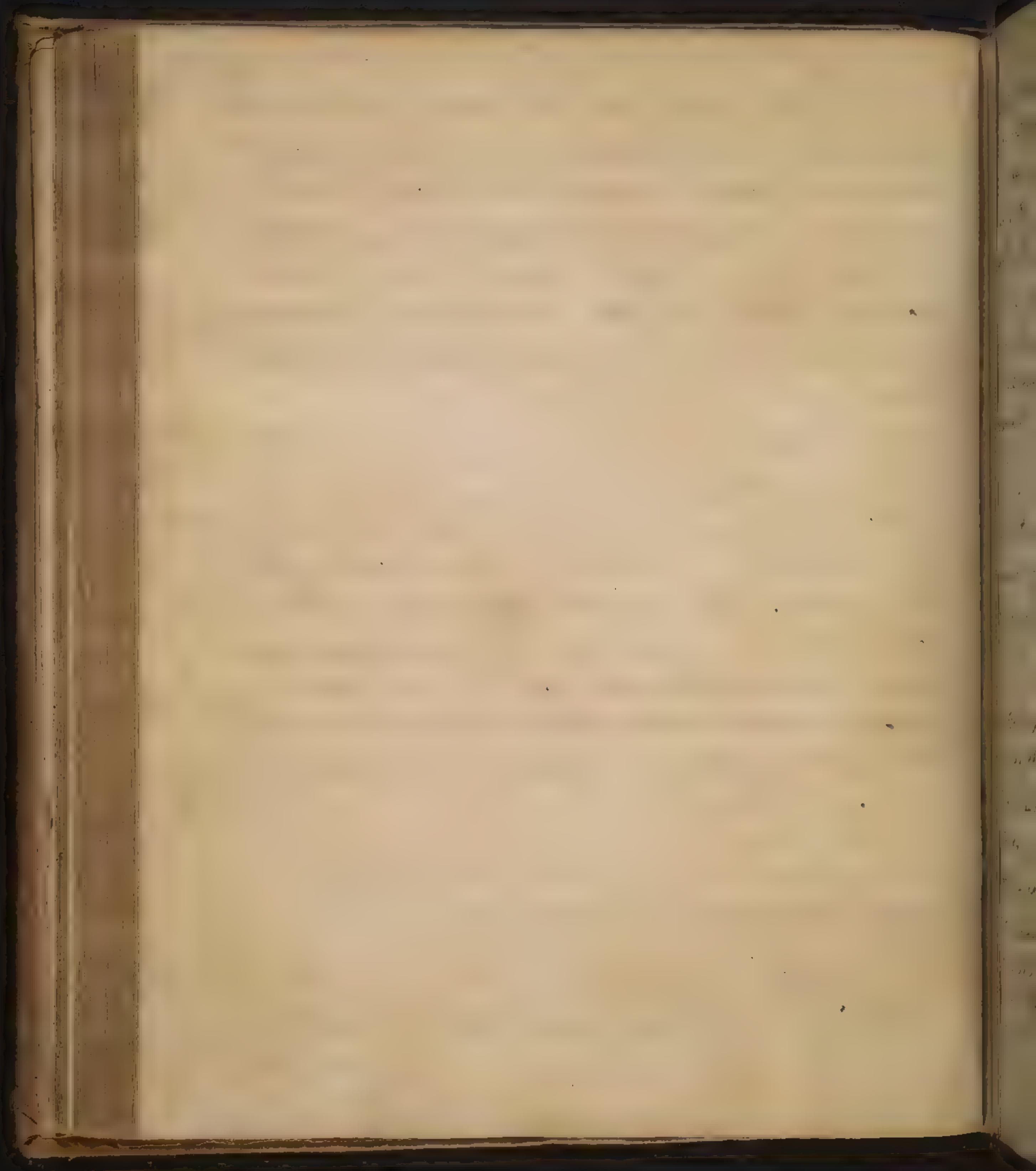
But to come nearer. The system I have delivered in the 21<sup>th</sup> part of the Synopsis is exactly to be the plan of our course. By it you will always be able to follow me, and know what is to come next. I shall be glad to find you already acquainted in some measure with the systems, as that will enable you to follow me with more advantage; for I am obliged, you will not frequently, to compare the other systems with mine.

I think the order of our system is preferable to that of others, as it begins in the most common and convenient method. Thus you will easily perceive that I could not begin with the *Vitiae of Savages*, being so numerous, mostly Chirurgical & of little importance, and many of them not admitted into my system, though, upon a certain occasion, he calls them the *Elementa Morborum*, but required some thing else to be premised. Neither could I begin with Linnaeus' *Eosanthemata*, before giving the general doctrine of fever &c.

Having, then, given the order of our course, I now enter on our first class,

### Cl. I. Pyrexia.

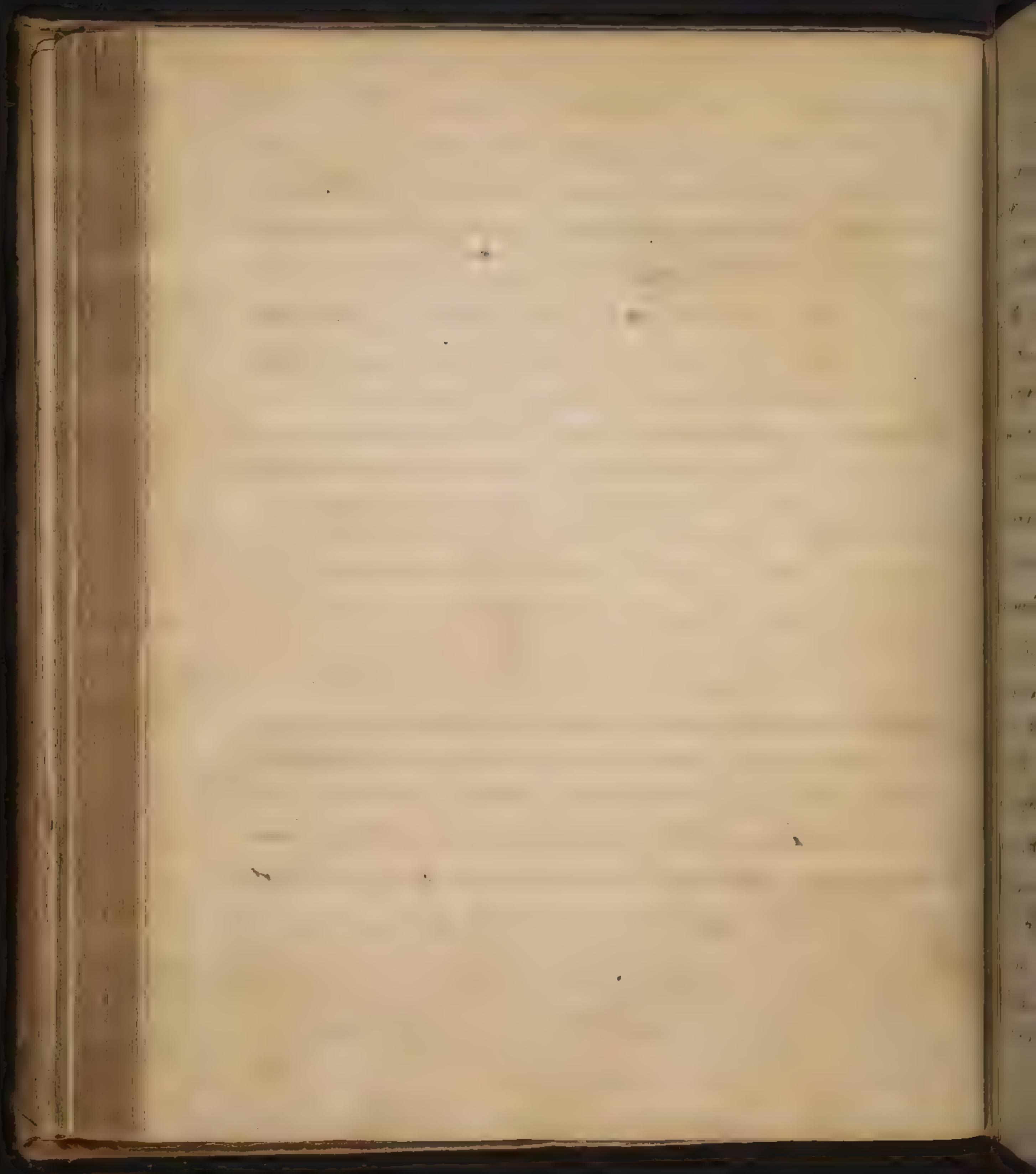
(Character. Post hafrorem pulsus frequens, viribus artuum imminutis)



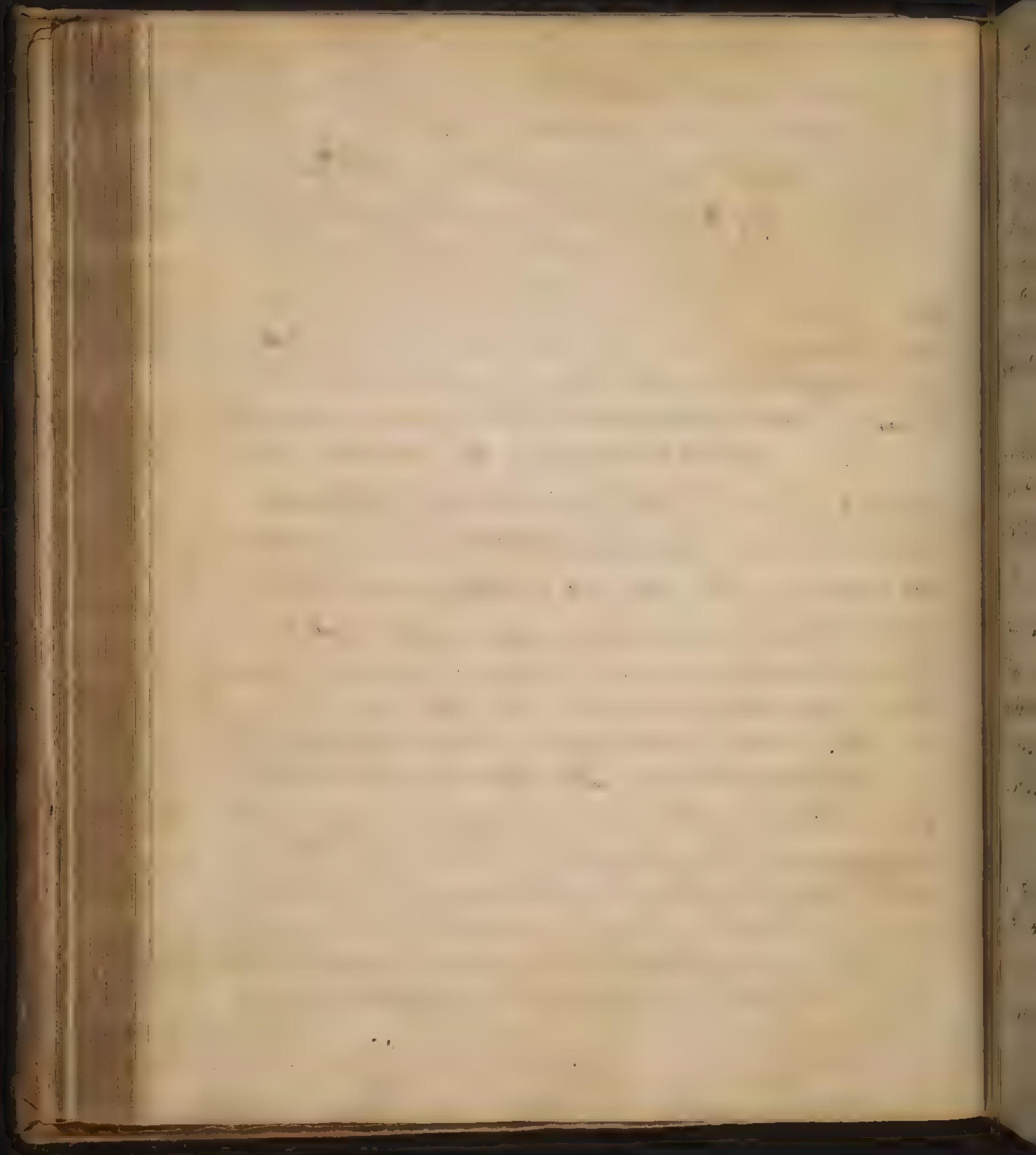
71.

imminutis] This altogether a natural Clap. I might now enter into a discussion of the character of the Clap, but I soon rather to give a general history of Pyrexia; and in doing this I shall chiefly attend to the first and principal Order, of Fevers, to which term, you will see, I have applied a more limited sense than usual; for hitherto the terms Pyrexia and Febris have been used as synonymous - I shall give this general history of Pyrexia, as it is best exemplified in the Paroxysm of an Intermittent, the history of which will apply pretty well to the Clap - and the first in which I give this history of a single Paroxysm of an Intermittent, I intend as a model (and you are to take it as such) of the manner in which I shall relate the history of every fever through this course.

I say, then, that the Paroxysm of an Intermittent comes on with a sense of Lassitude, consisting of a sluggishness and aversion to motion with debility - This is accompanied with Pandiculatio, or Yawning involuntarily, pallor of the skin (the veins disappearing on the surface) especially in the extreme parts, the tip of the nose, and the nails - The bulk of the body is now unfeebly diminished, the face suffers a Collassus, and things which before were sufficiently small, now drop from the Fingers - &c. Now the skin is dry, the Papilla (from whence



Whence the hairs grow, become more eminent and remarkable, in so much that, from the similitude, they have in several Languages got the name of Gooseflesh - With them, or soon after, (a sense of cold comes on, commonly felt first in the feet and back, with a sensibility of external cold - When the patient desires to keep himself covered, or hovering over the fire - This, beginning in the feet, spreads soon thence through the whole body, with a sense of creeping, especially along the back, where there is sensation similar to that of pouring cold water upon the Part, frequently proceeding, as it were, with Rushings over the whole body - This brings on a Tremor, affecting all the Organs of Voluntary motion, but more especially those that are not well delineated and supported, as the Lower jaw - along with this, frequent Rigors or sudden convulsions of the whole body - and now an actual or real cold comes on, which is insensible to the touch, whereas the cold before mentioned was felt by the Patient only - Next, transient fits, of flushings of heat and cold alternating, come on, till at length the heat prevails, and after some time extends itself perfectly and permanently over the whole body - With this the colour and fullness of the skin return. These and the heat are for sometime attended with a dryness of the skin, but afterwards some moisture appears, terminating at last in a profuse and universal sweat, with which



which the heat and other symptoms gradually recede and become less, till at last the return again to its natural state.

This, then, is the general and most evident series of Phenomena that occurs in a Paroxysm of a common Intermittent, and which characterizes the general name Fever. You will observe that in the above relation I have chosen the manifest appearances only, which are more especially received by the Patient himself, or are evident to the Bystanders.

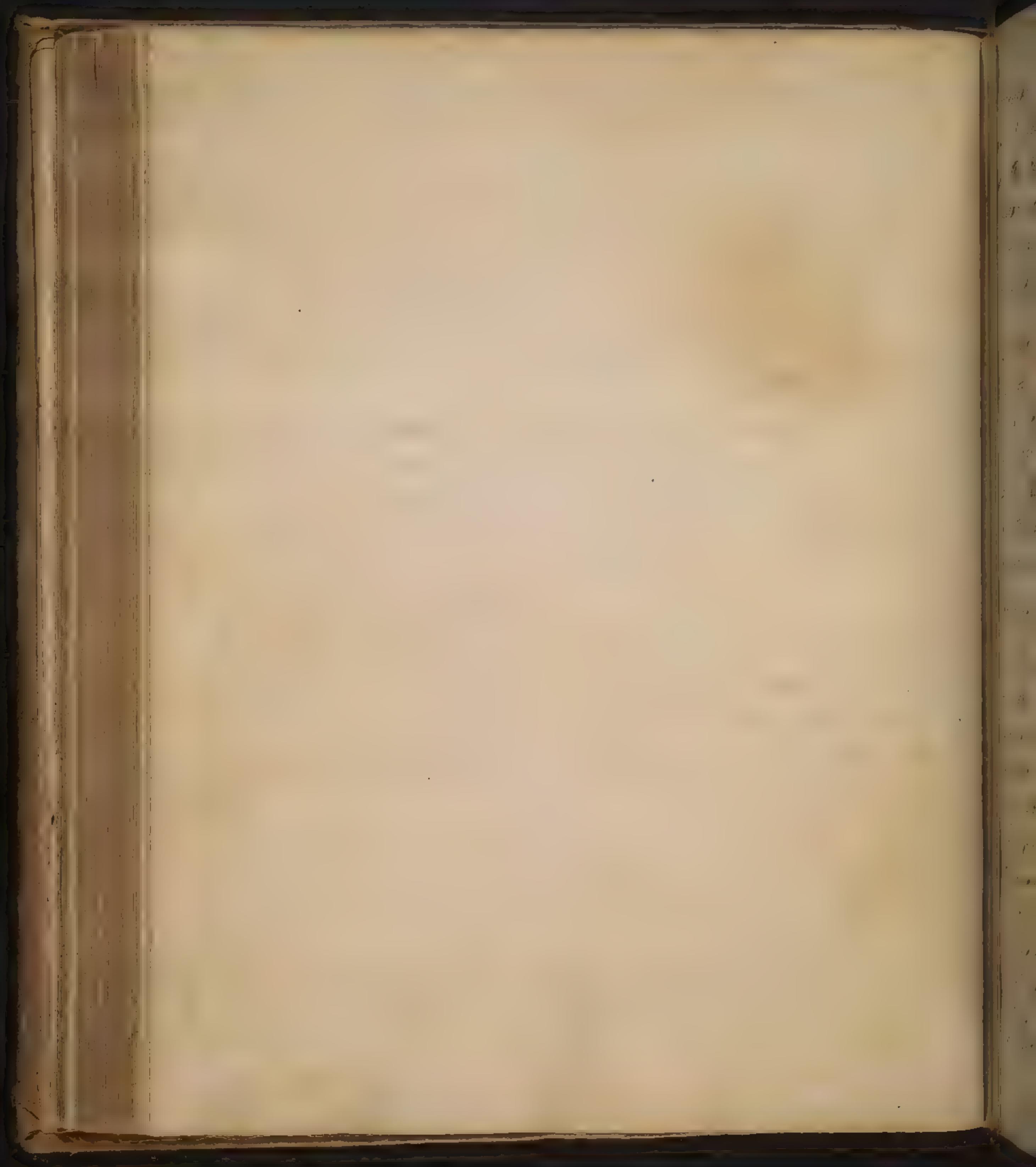
But there are many others which are to be remarked by the Physician, and these I shall now proceed to relate. But before we do this it is necessary to establish a certain order.

Physicians have divided the series of symptoms occurring in a Paroxysm of an intermittent, into three stages. What Dr Sydenham calls the *Tempora Exphorrepentis*, *Obullitionis*, and *Despernationis* - or that in English we name the *Cold fit*, *Hot fit*, and *sweat, or sweating fit*.

I shall proceed to give the other Phenomena, as they respect each of these stages, and shall begin with the *Pulse*.

This, at the coming on of the *cold fit*, is weak, small and frequent - as the *cold fit* advances, it becomes

irre

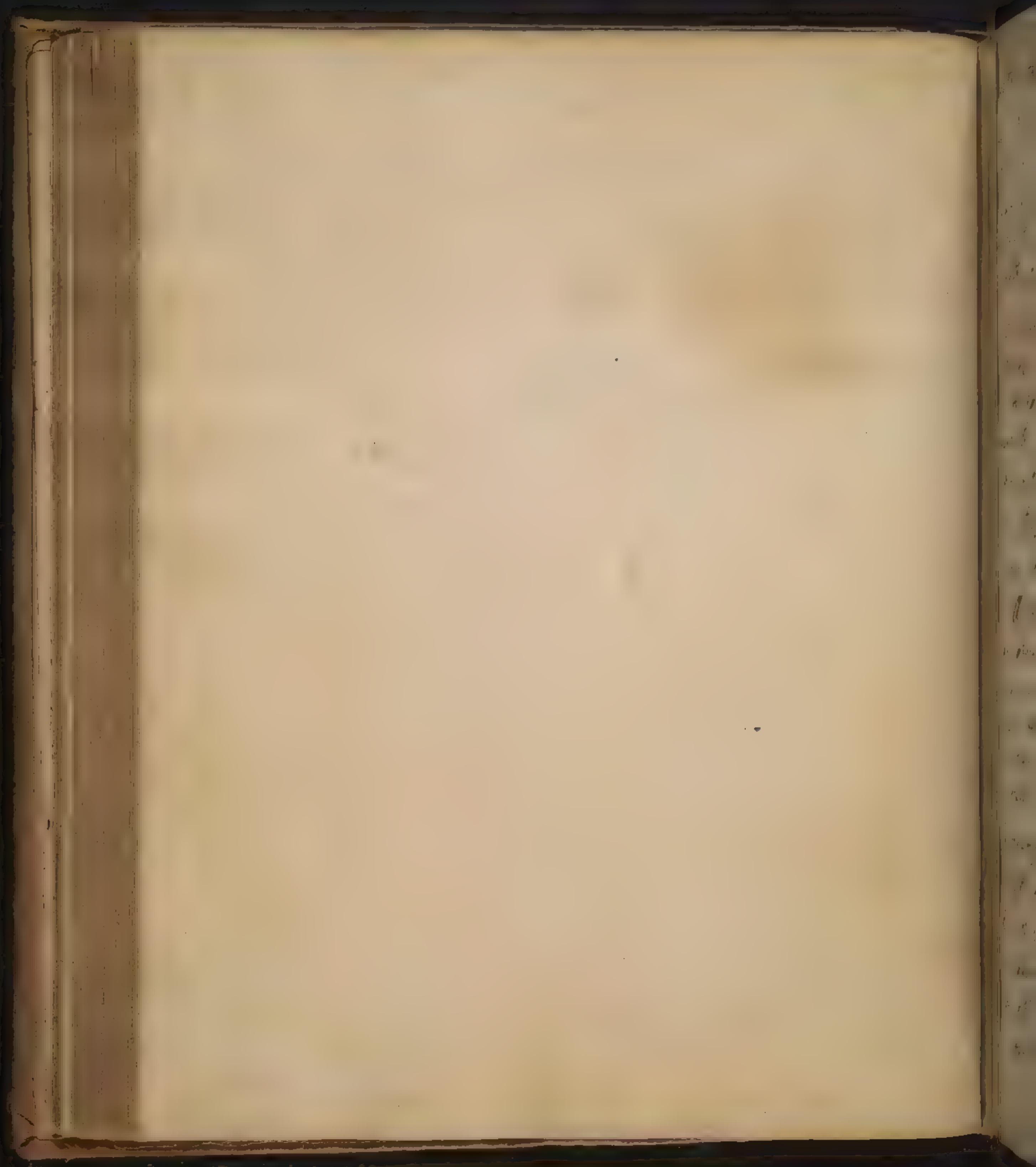


714

irregular, weaker, and Intermittent - When the Tremor comes on it becomes stronger, and is somewhat more regular - as the heat prevails it grows stronger, and soon quite regular, though it is yet in all and contracted - But with the Eruption of the sweat it becomes fuller and softer, till at last it subsides entirely, and becomes natural -

2. Respiration. In the cold fit is small and difficult - When the hot fit comes on, it becomes larger and more easy - till at last, with the sweat, it is quite easy, and at the same time less frequent - In short the respiration undergoes the same Expirations and Inhales exact pace with the Pulse - at the same time there is an anxiety attending it, which depends on the difficulty of Respiration, and consequently varies exactly with it in the different Stages.

3. But besides this there is another anxiety depending on the State of the Stomach - With regard to this we generally observe in the beginning of the Cold fit an aversion to all Ingesta, and such things as at other times would be agreeable, as snuff and Tobacco, &c - This proceeds to Nausea, and at last Vomiting, and the matter ejected is generally Bilious - The Nausea is most sensible in this height of the Cold fit, but is always suspended for a time by the exertion in a fit of Vomiting; as it is the effect of every fit of Vomiting to diffuse some glow over the skin - When the hot fit comes on the Nausea begins to go off - and with



with the sweat quite disappears.

75.

4. Next let us view the Secretions - In the cold fit there is a dryness of the Skin, with Thirst, which augments, however, both the cold and hot fit. But in the cold fit it arises from a sense of Claminess in the mouth, and in the hot from a sense of heat.

5. also with regard to another particular secretion, the Urine; if any is voided in the cold fit, it is pale and crude; in the hot fit it becomes high colored, and in the sweat deposits, for the most part, a copious Lacteitious sediment.

6. Stools rarely occur in the Paroxysm, but when they do it is in the sweat.

7. Any morbid Tumors ("and perhaps Ulcers) that are about the body, suffer during the cold fit a Detumescence, and that sometimes in such a manner as never to return, but for the most part, the determination ~~being~~ particularly to the surface, they are restored and even enlarged in the hot fit - also running Ulcers in the cold fit become dry, but in the hot fit are restored with an increased discharge.

8. Besides these Symptoms, along with the cold fit, a headache generally comes on, which continues, and goes off entirely only with the sweat. Other pains, as those of the back, accompany this period.

9.



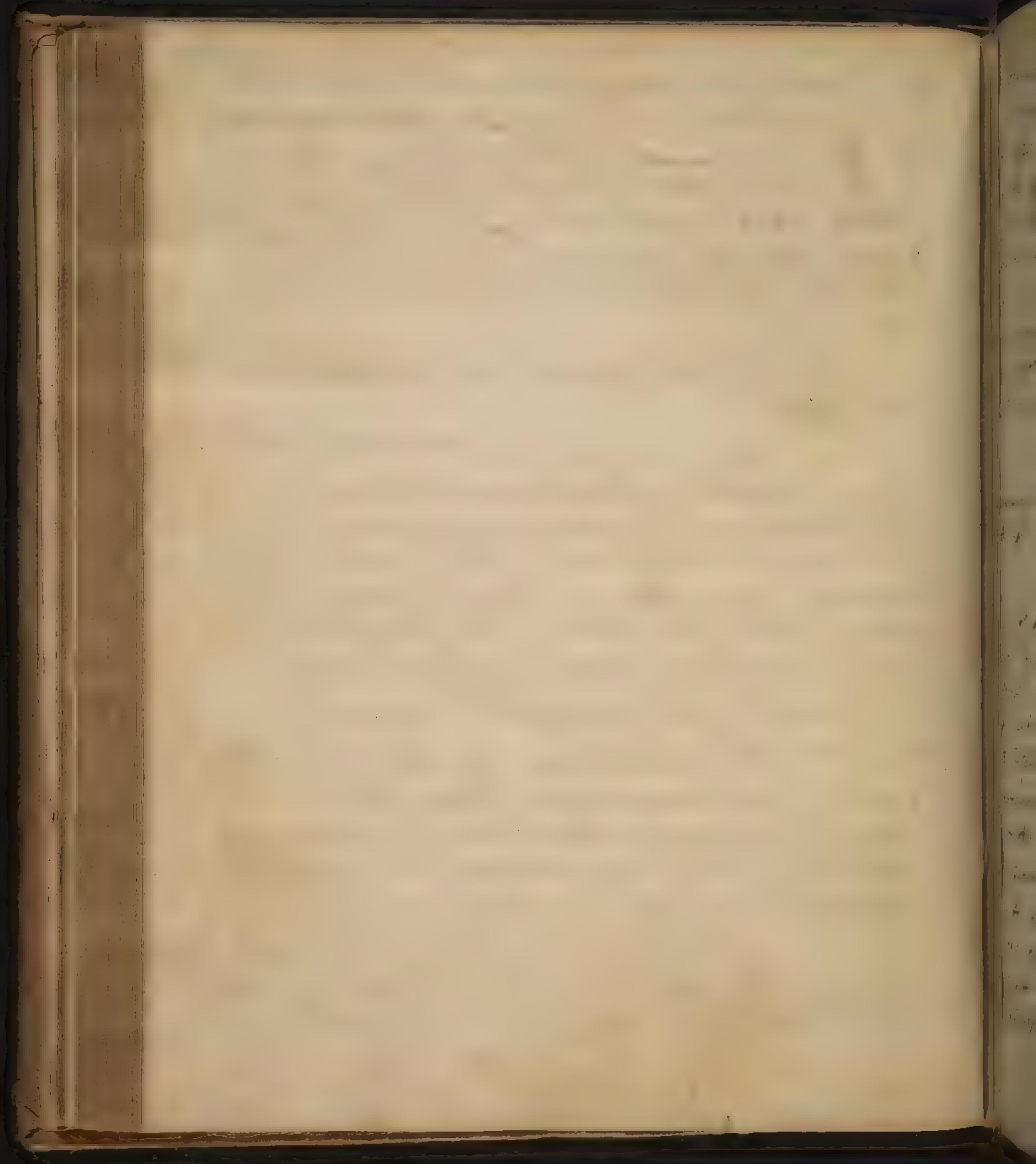
q. In the cold fit there is also a great insensibility -  
This is sometimes so remarkable that Persons have  
had their feet burnt without knowing it. But  
in the hot fit this is succeeded by an increased sen-  
sibility, which is particularly observed with regard  
to light and noise, the usual impressions of which  
now give so great a stimulus as not to be easily over-  
powered.

### Next with regard to the Intellectual Functions

1. In the cold fit a difficulty of attention and a con-  
fusion of thought frequently come on and proceed some  
times to delirium. Then continue in the hot fit, and  
at last go off with the sweat. There is also a great  
degree of stupor that the Patient is sometimes coma-  
tous. There is likewise in the cold fit frequently  
a great variety of Spasmodic Convulsive motions  
excited in the system, along with Tremors, &c -

These in general are the Phenomena that  
occur in the Paroxysm of an Intermittent. But  
I do not mean that every Intermittent gives exactly  
this series; for, on the contrary, we shall find,  
that there is in them a considerable variety -

The Paroxysms of Intermittents have va-  
rious lengths, from five to twenty hours. Vogel says  
says eighteen, but I soon & give greater exactitude, and

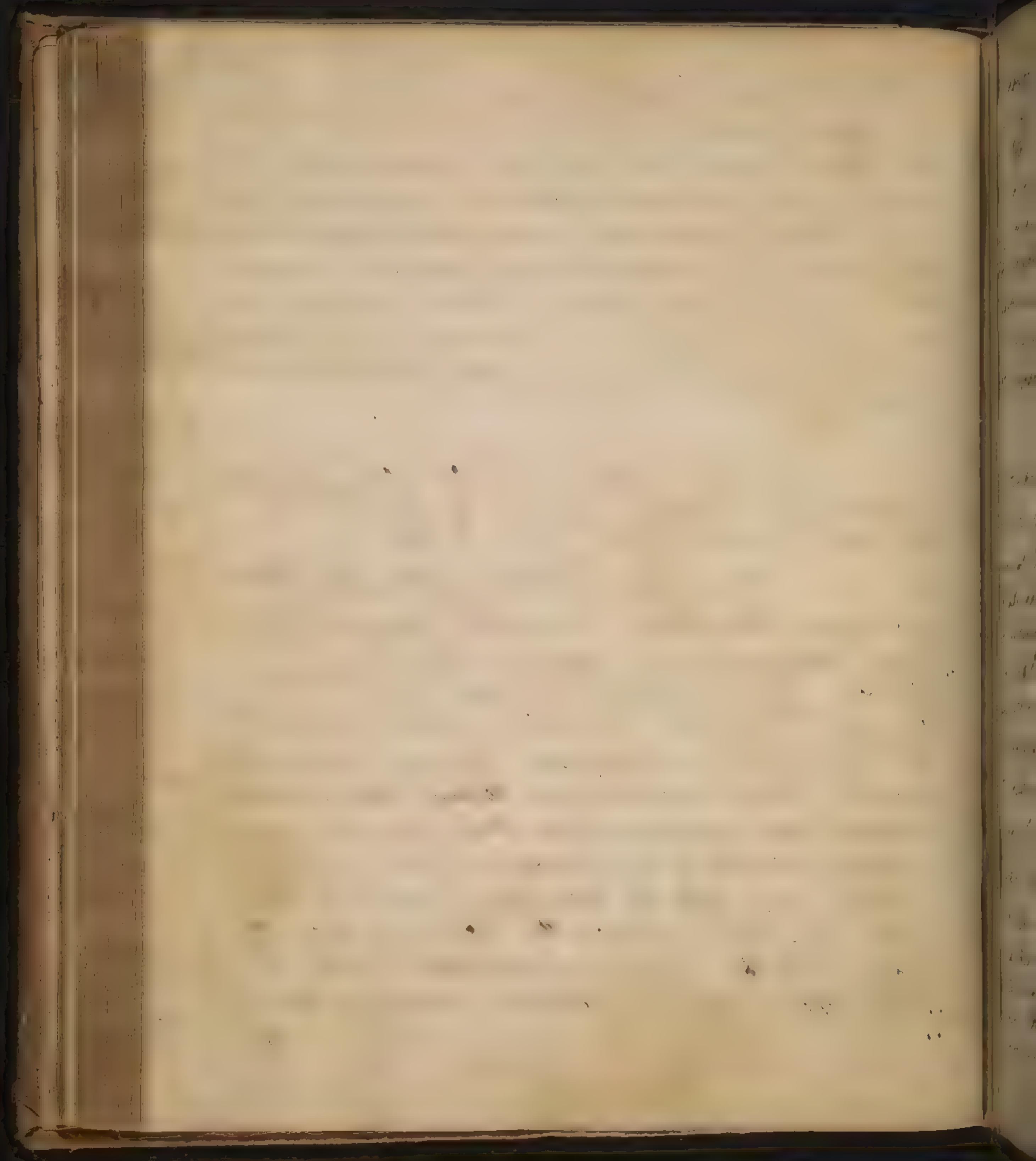


77.

I hope with some propriety - also while the whole fit occupies in different instances different spaces of time, the different parts of the same fit (as before distinguished) occupy different portions of this time - sometimes a hot fit is resolved without any sweat following, and in like manner a cold fit is sometime not followed by a hot one; for it is indeed a fact, that no Patient ever dies in the Paroxysm of an Intermittent after the hot fit is formed, but before, in the cold - some will dispute this point with me, but it is a fact

The subject of fever, which we have begun, from its frequency and fatality, is not only the first but also the most important part of our business -

I have begun with the history of a Paroxysm of an Intermittent, by which I give an Idea of every instance of fever in general - But it is to be observed that hardly any fever goes off with only one such Paroxysm; but after a certain space called the Intermission or Apyrexia, the same series of Phenomena begin a new, and run through the same course: Now, this space of time in which there is an entire apyrexia, or from the end of one Paroxysm to the beginning of the next, is called the Intermission - and the whole space of a period, or from the beginning of one Paroxysm to the beginning of another, is called the Interval - the most common interval is that of



18

48 hours, which is called <sup>Febric</sup>; and this is so universal, that I believe of ten Intermittents that occur, nine of them are of this type. The next most common Interval is that of 72 hours, called the Quartan. Others have been observed, as especially an Interval of 24 hours, or the Octidian. And besides these Authors have remarked some that are shorter even than the Quotidian. But I hardly consider them as giving different Species of Diseases, but rather look upon them as Anomalies of the others.

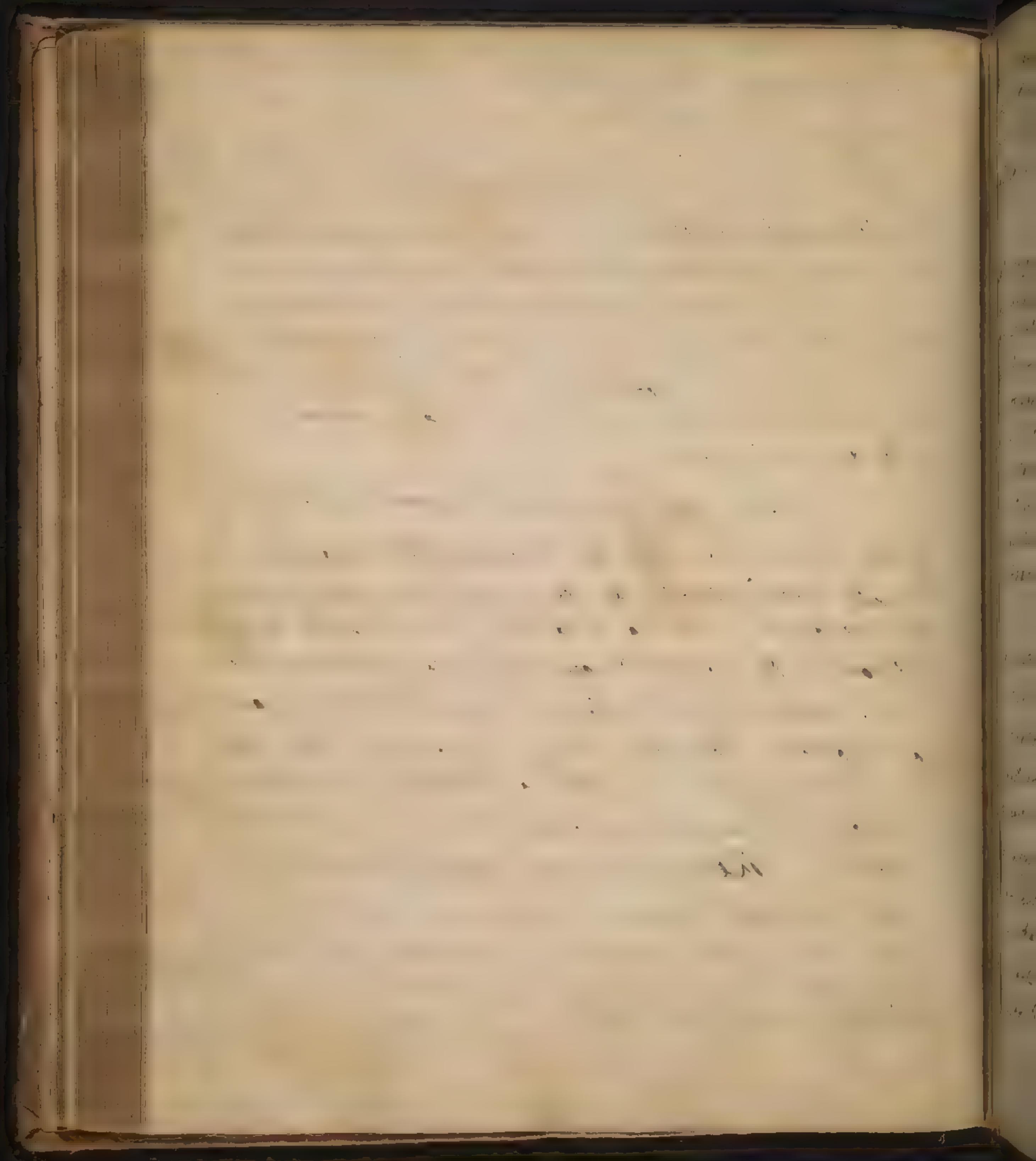
The duration of the Paroxysms of Intermittents is from 5. 8. 18. or 20. hours; and none are observed to last longer than this. But there are Paroxysms of Fever which do not come to an Intermission in 24 hours, yet though the hot and sweating fit do not entirely go off, they will always in this period suffer a Remission or Abatement of their Violence; and when the Remission is without sweat, and the returning Paroxysm ~~is~~ accompanied with cold, the next Paroxysm at the end of 24 hours is called an Accession. And the Fever consisting of such, is called by Authors a Remittent, or by Linnaeus Febris Exacerbans. In these the Remission is marked with a sweat, and the accession by Periodical return of the Fever, by a return of the cold fit. But when the Remission is without, and the ensuing paroxysm without cold, the fever is continued.

When



When these thin Circumstances of the Periodical<sup>79</sup> return of sweat and cold fit are not noted, and the fever has were any remission, and the returning Paroxysms are distinguished by some increase of heat fit only, this is called a Continued Fever. This has gone so far that many Physicians have thought that there are two fevers, consisting of but one Continued Paroxysm, which they run through with Uniformity from beginning to end - all, I shall say in Exploration of this opinion is, that through the whole of my Practice, I have never met with any such fever.

Now with regard to the Proportion of the length of the Intermision and the Duration of the Paroxysm - In all Intermittents, the longer the Interval the shorter the paroxysm - Thus a Quotidian, which has the longest Interval, is the shortest Paroxysm and longest Intermision. The Paroxysm of a Tertian is somewhat longer; and a Duotidian has still a longer Paroxysm with a short or Intermision - So that a Duotidian sometimes having the Paroxysm protracted to twenty four hours, becomes a Remittent, and that frequently of the most Continued kind - It appears, then, that all fevers have a considerable affinity to one another - And therefore I have taken a Paroxysm of an Intermittent, as a proper example of the whole - The symptoms of which I have



have drawn up with as much care and accuracy as possible. But least you be not contented with what I have given, I shall refer you to the principal authors on this subject, in order that you may consult them at leisure.

First, then, in Boerhaeves *Apth.* 749. and the following, you will find the history of Intermittent fever delivered though he says little else of much value on this subject. Consult also Dr Hoffmann's writings on this subject, in which you will find many curious and useful things. also C leghorn's on the disease of Minorca - and a Book entitled "De Recurrente Tribium remitterentium natura" to which the author has not put his name but it is ascribed by every one, and that with pretty good certainty. to M. Vende, first Physician to the King of France.

Having now enumerated the Phenomena I shall next, upon I proceed to the third head, under which I intend to distinguish the Species, attempt the Investigation of the Proximate causes of fever. Here I shall enter on what you will call Theory, and therefore, perhaps, object against it. Unto those who are disgusted with the name, and will look upon what I am entering upon as an interruption, I can but assure them they will suffer this Interruption for a few days only - and can tell others that they have no reason to be scared at it, whatever idea they may at present



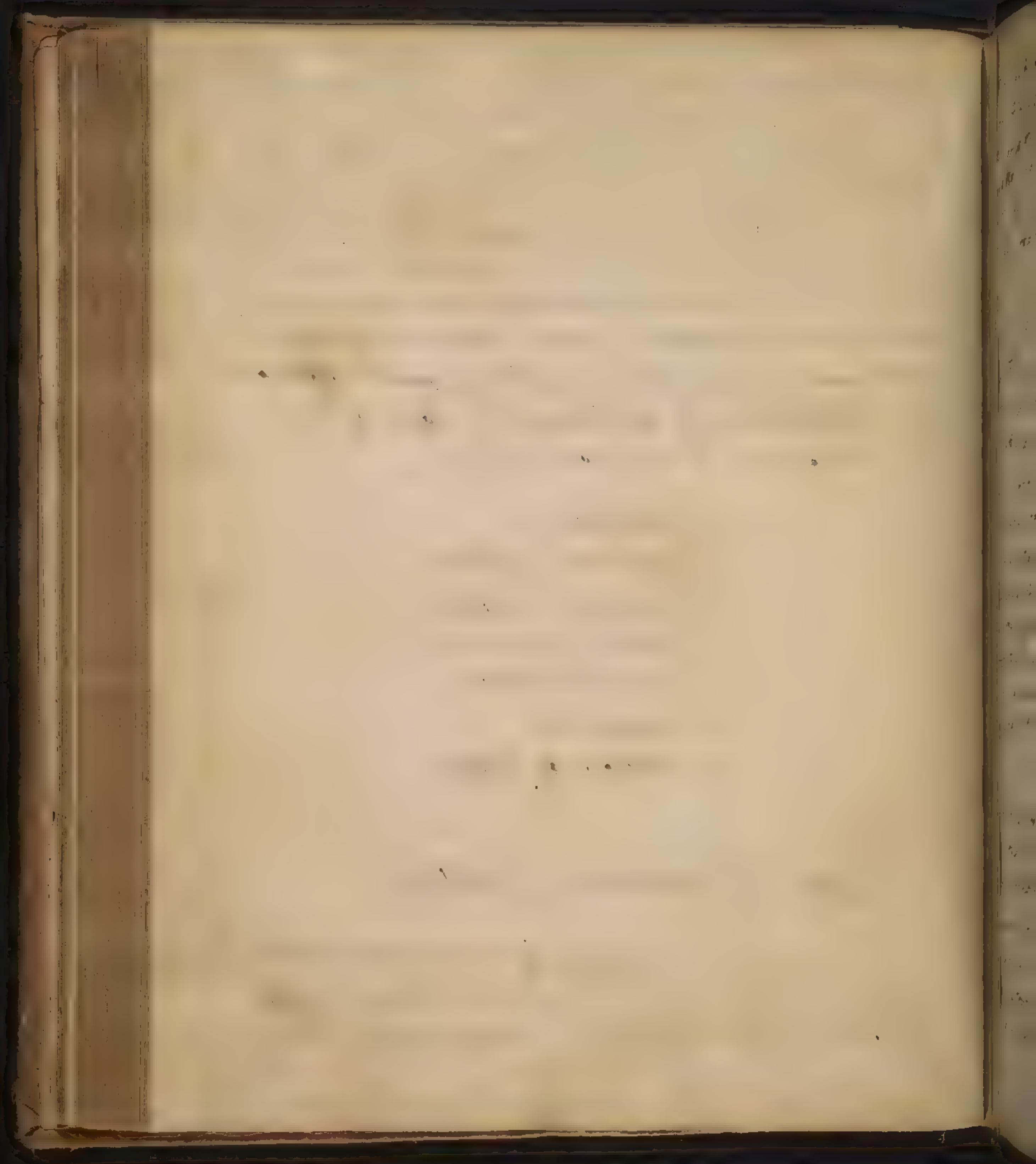
present entertain of it. For my Part I consider the whole of my reasonings and proceedings in this matter only as an enumeration of Facts and establishment of them. Philosophers in general do not pretend to explain the manner of Connexion between Cause and Effect, to show how the one comes to follow the other; but only endeavour to establish their necessary Connexion as a Fact. By this manner of reasoning, then, rejecting every thing, I shall advance on Facts what I propose to offer on the Investigation of the Proximate Cause of Fever.

My order in every disease shall be

1. Definition.
2. Description or History.
3. Proximate Causes, & ~~especially~~
4. Genera and species.
5. Remote Causes.
6. Prognosis.
7. Method of Cure.

### III. Proximate Causes.

This indeed is among the most difficult Problems in Physic, and one which has hitherto baffled the attempts of all Physicians. I do not expect to elucidate it

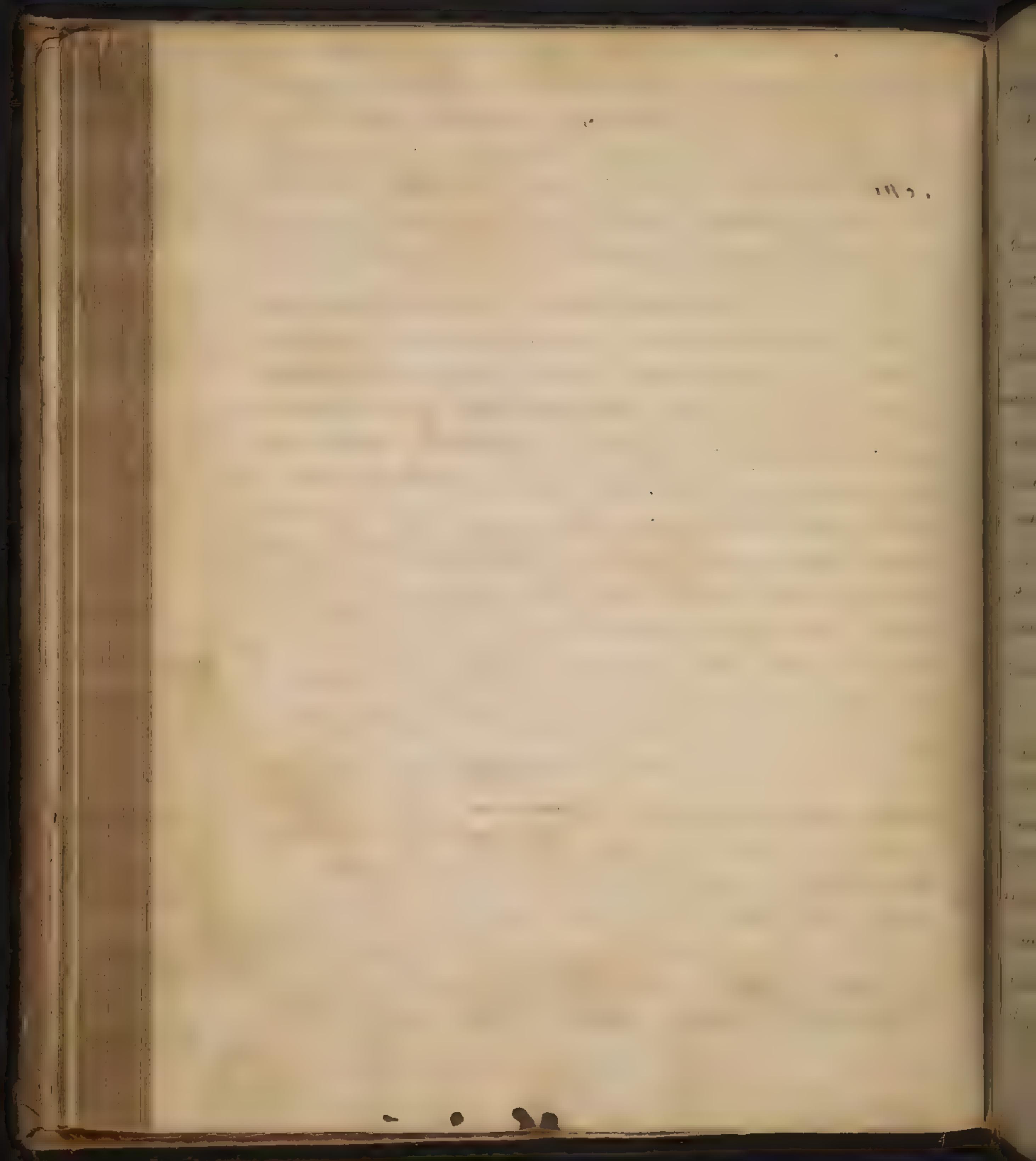


32.

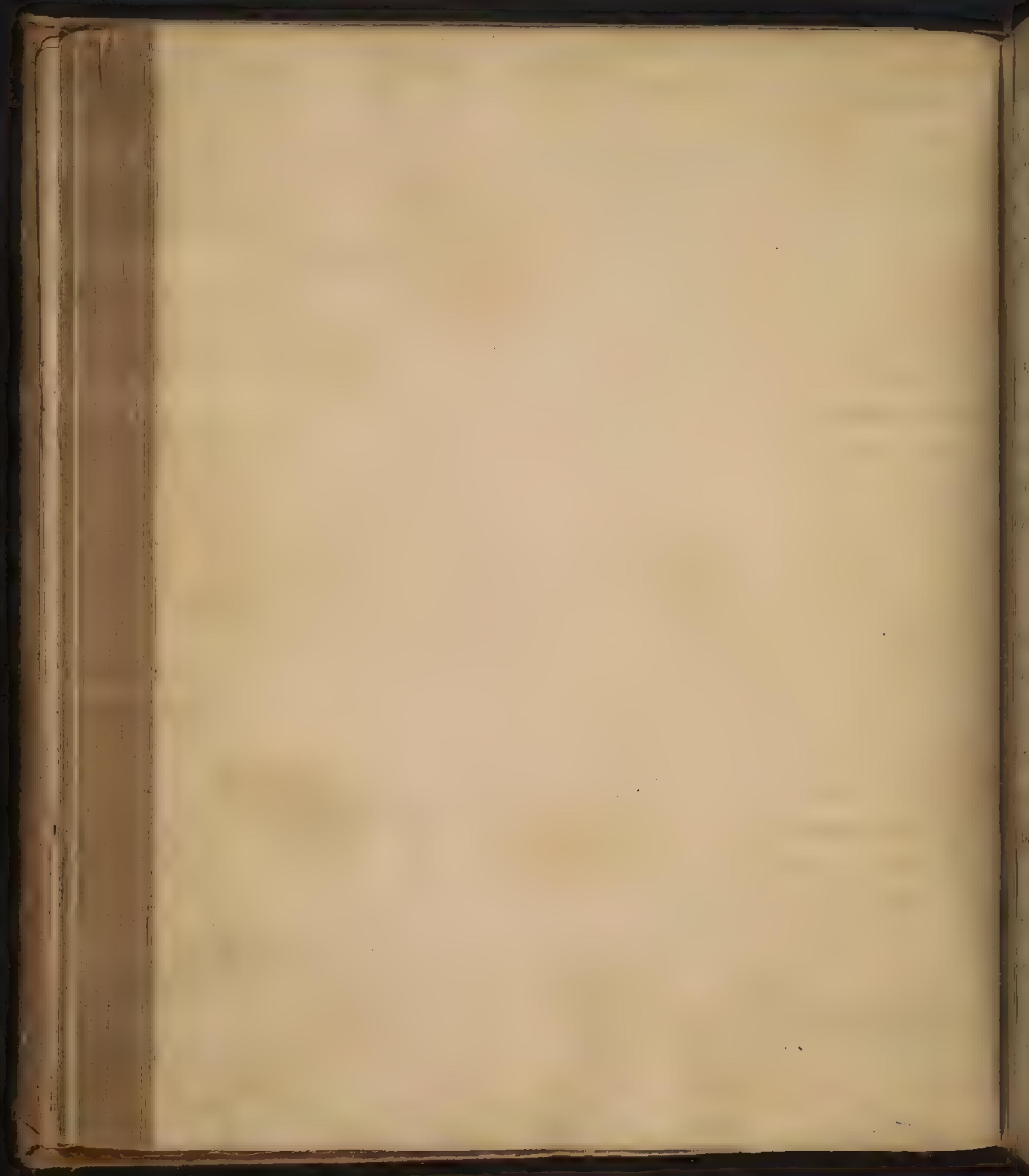
It is such a manner that there will remain no defects and objections to it; but hope I shall be able to bring the shorter somewhat nearer to truth, and to point off the matter most proper for pronouncing it farther. We shall also by my attempts get rid of a great deal of false Theory that has been introduced on the subject of fever.

I first observe, then, that the Phenomena of fever are very various; but as they in general succeed one another in a series with some regularity and constancy, there is a strong presumption that they depend upon one another as Cause and effect, and that the whole series arises from one common Cause. At the same time I do not deny that the Cause of fever may be often of a compound nature, and that some Phenomena that occur may be owing to the action of accidental Causes, and are not at all the effect of the common Cause. But I presume that there is one common simple Cause, upon which the most general and steady Phenomena of fever depend. This is what it is our business principally to enquire after.

I am now, then, to investigate this common Cause of the variety of the Phenomena of fever. And here in the first place we agree with all the physicians that the Phenomena in this series succeed one another as Cause and effect. Next I adjust also what they have agreed on, that frequency of the Pulse is the leading symptom of fever, and that the increased action of the Heart and arteries is the part of the series of Phenom

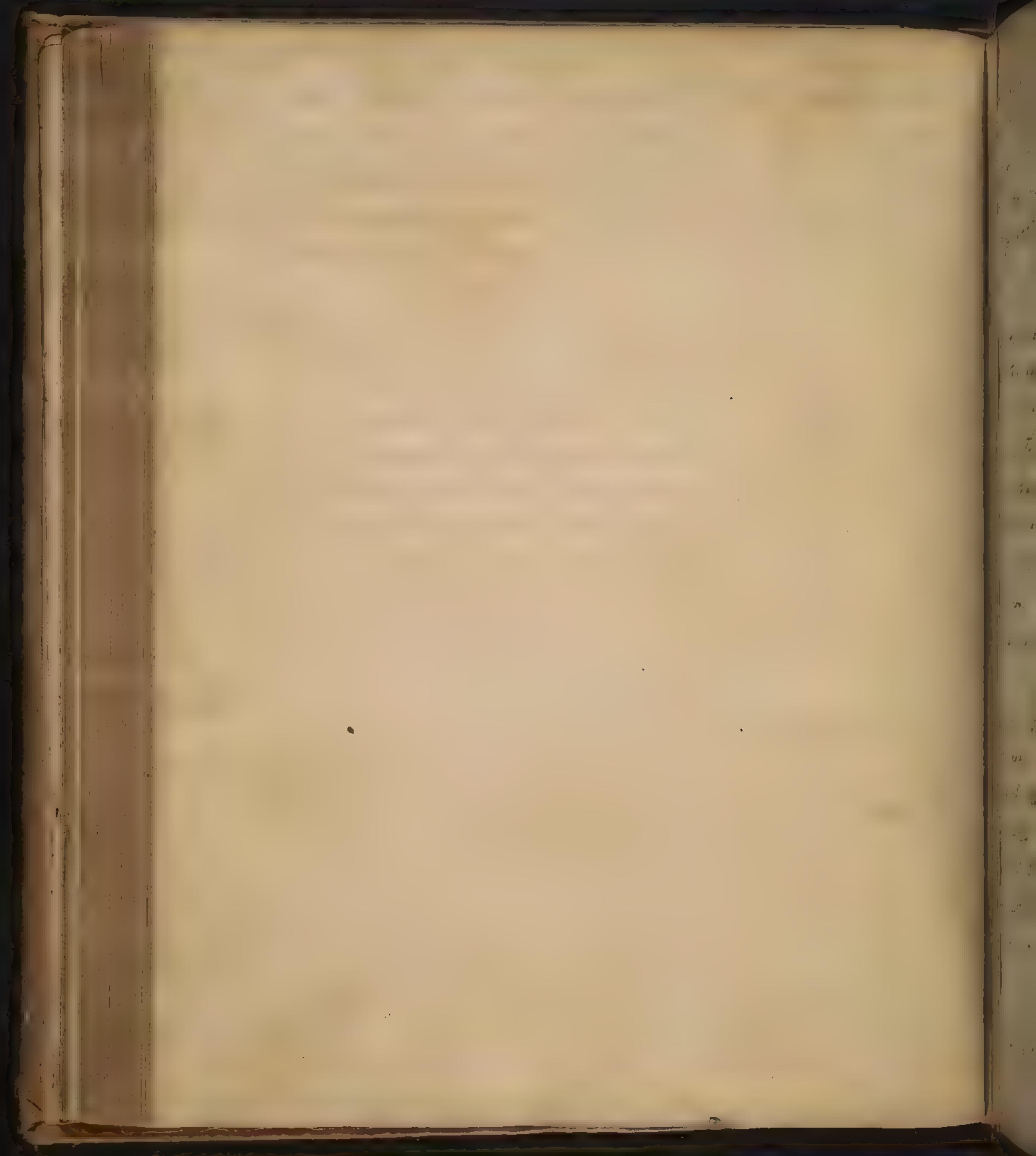


Phenomena which is to be looked upon as the fever -  
Now in searching for the Cause of this, what first occurs  
to us is a direct Stimulus applied to the heart and  
arteries (You know what I mean by a direct Stimulus).  
This, then, is what would immediately occur to us, on viewing  
only the hot fit of fever, or the enervated action of the heart  
and arteries - Accordingly a Direct Stimulus of this sort has  
been hitherto generally admitted as the Cause of Fever. But  
on supposing this at once a Difficulty occurs, viz. that very  
often direct Stimuli are applied, and do enervate the action  
of the heart and arteries, and yet do not produce fever ;  
for no disease in such case is said to be present. This is the  
effect of Exercise, Wine, Exposition to heat, &c. - Therefore  
every body allows that the enervated action of the heart and  
arteries alone does not constitute Fever; but that other cir-  
cumstances besides this must attend before a Fever can be  
said to be present. What then other Circumstances are  
is not, however, so well agreed - I think the most uni-  
versal Circumstances should be taken in, and we should  
say, an enervated action of the heart and arteries following  
a cold fit constitutes a fever. This then being established,  
in fact, till further disposes us what we took up before,  
viz. the notion of the hot fit of fever being owing owing  
to a direct Stimulus. This however is the opinion  
generally prevailing, and which is in the mouths of above



two thirds of the Physicians of the present age - How upon these Principles is the hot fit produced from the cold one which precedes it? - I think it necessary to enter somewhat deeper into a Doctrine that is so general; and however absurd it be, it is necessary that you be acquainted with it.

Let us see then how Dr Boerhaave proceeds in this matter (vid. aph. 577). Here he admits a compound cause acting, and says that one part of the Circumstances of the cold fit is at the same time giving a direct stimulus to the heart and arteries. - Further (vid. Aph. 581 and the following) his last words are "Unoque nato, facile alterum requiritur". Here is an obvious Embarrassment in his Doctrine. In this place the first question to be determined should be, which of these two states in fever precedes the other? for that which precedes must be looked upon as the cause of the other. But neither he, nor his Commentator Van Swieten, have entered into this question. (Vid. aph. 586.) - Here Dr Boerhaave enumerates a great variety of direct stimuli, which he does not name at all, again except the primary causes of fever. But neither has he nor Van Swieten told him explained how these causes (586) produce the cold fit; for they are all direct stimuli acting on the heart and arteries. (See again Aph. 582. with the Commentary.) But observe that in the Series of Phenomena or Facts, that which



that which comes first is the cause of what follows. - Thus the cold fit, which always precedes, is the cause of the hot fit. - Therefore it appears that Dr Boerhaave and his followers are very much perplexed here, and have got on a very wrong footing.

I assume it, then, as a Fundamental Proposition, that the Causes of fever operate in producing the cold fit; and that this again produces the increased action of the heart and arteries. The nature of the remote causes will also be found to agree with this Proposition, and to tend to support it. But I infer that the cold fit of fever is the cause of the hot fit from the Universality of the Suspicion, as they occur in fact. To prove which I cite the Testimony of Dr Hoffman (Vol. I. Pag. 35.) - This I hope will be strongly supported by the Explanation we shall give of the Prophylactic Causes.

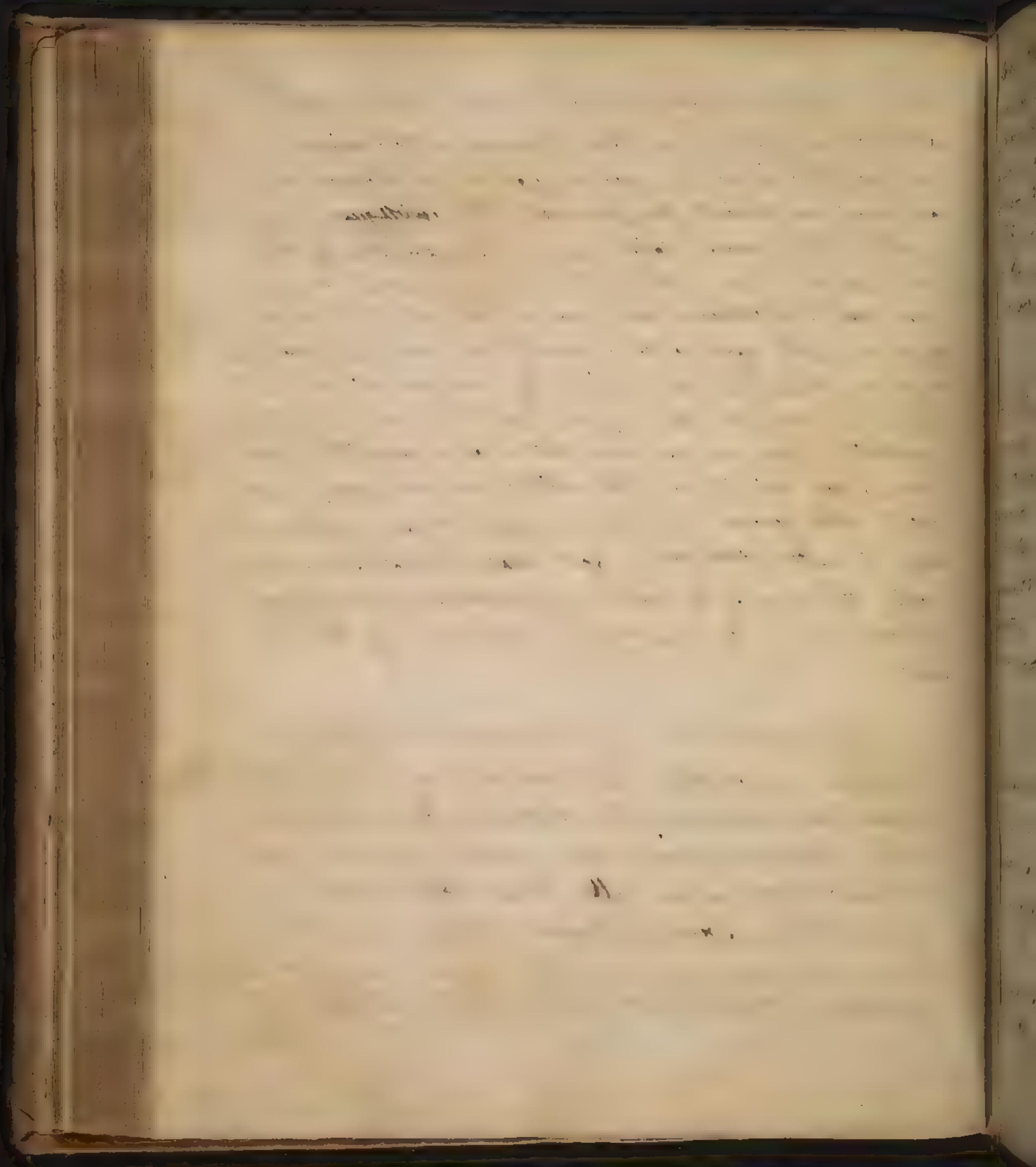
I shall here supply an omission I was guilty of formerly, when speaking of my References in the Synopsis. Those made to Dr Hoffmann's works do not reflect his Med. National. Systemat. as divided into Volumes, and first Published by himself. But my references are made to his whole works, as Published altogether in the last Edition (that of Geneva) and distributed and bound in six Volumes, 3 vols. - One of which contains 3014 Tomes, as they were first divided by the author.

I do very strongly assert the Universality of a cold fit preceding the hot one. - Nothing is more necessary



neither in reading Boerhaave and Van Swieten than to observe a particular inconsistency in their Writings, on this subject - (in aph. 756.) Here he calls the Cold fit the Palma causa, and says if we obviate this, the whole of the subsequent is prevented - His Commentator gives an explanation of this - and upon the whole I think if there is any doubt remaining, but that Dr Boerhaave and Van Swieten were of the same opinion, with regard to the Proposition we are maintaining, as we are, it must be this - That they are explicit only as to the Cold fit being the cause of the hot fit in the case of Intermittents - But we shall find that what is admitted as the cause of the hot fit in Intermittents, will also apply in general to other fevers. Therefore we take it for granted, and deem it matter established in fact, that the Cold fit is universally the cause of the hot - and that the cause of fever, in all cases, is sought for in the cause of the Cold fit.

In enquiring into the cause of the cold fit of fevers, Bellini universally, and Boerhaave in his early Editions, supposed fever was owing to a Lentor or Slowness of the Blood - Boerhaave alons to have perceived the Imperfection, and accordingly in his later Editions of his Aphorisms, he refers it to an Inertia liquidi Nervosi, and Van Swieten in his Commentaries on this imputes entirely to an affection of the Nervous System, rejecting the state of the blood



87

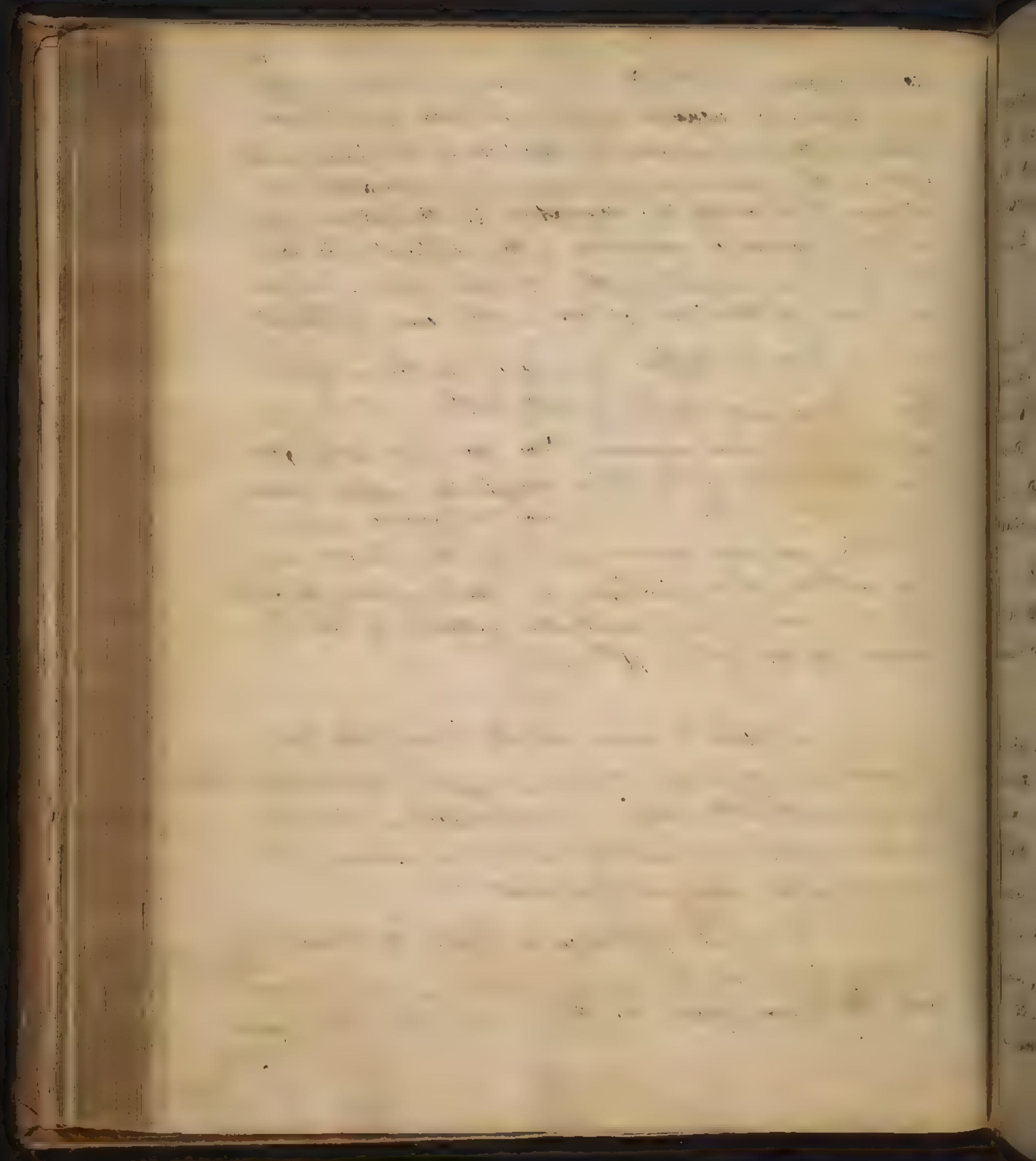
blood. Moreover Dr Whytt, who, I know, was once of a different opinion, expresses himself in his Book upon Nervous Disorders to the same purpose, viz, that "the cold and shivering which occur in the beginning of most fevers and inflammations, do not seem to be owing to a stagnation in the extreme vessels, but to a premonitory contraction of them before." The cold fit, then, is an affection of the Nervous system. and you are to look for the cause of fevers in the cause of <sup>the</sup> cold fit.

Different authors have searched for this in different ways. Hippocrates attended by little to this, or to the moving powers of the System in general. The Galenists looked for it in the Qualities of the fluids, though they supposed an active power in the System, which excited the febrile motions immediately; yet they always searched for the remote causes, which acted on this principle, in the Qualities of the fluids. And this doctrine was implicitly followed by all Physicians till the 15<sup>th</sup> or 16<sup>th</sup> Century.

I propose to enquire into the cause of the leading Phenomena of Fever. This is an inquiry that has hitherto met with little success. I shall proceed in it with caution, as they are connected with Circumstances, that are in a great measure complicated.

We must first enquire whether the Phenomena of fever depend on one common cause, or on a compound one. We suppose from the Universality and similar regular

Suspic



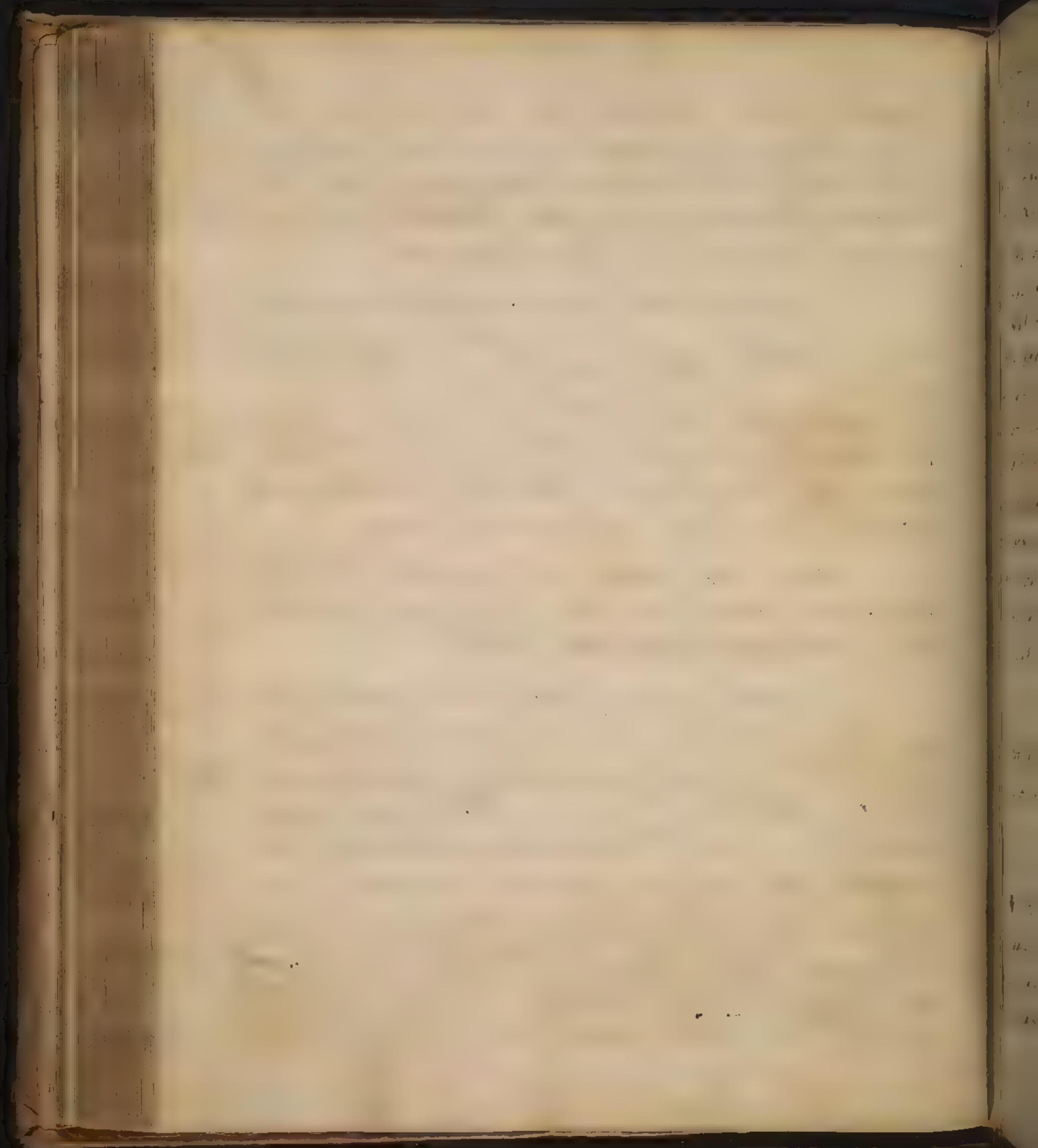
28.

suspicion of the Phenomena, that they depend on a common Cause - The hot fit is the most evident and remarkable part of the Series of the Phenomena of Fever, and therefore it has been principally attended to, and consequently the Cause of it only enquired after -

The first thing that is suggested to us here, is a direct stimulus applied to the heart and arteries, which accordingly is admitted by Dr Boerhaave as the Cause of Fever. At present, however, it is found necessary not to confine the character of fever to the hot fit, but also to take in the circumstances of the cold fit, otherwise the character will be very imperfect and inaccurate.

No one has yet been able to explain how a cold fit can be produced from the action of direct stimulus. We must therefore attempt another method.

I think we shall proceed better, meet with fewer difficulties, and come to a more useful Conclusion, if we consider the cold fit as the principal part of the Phenomena of fever - and this, I think, we are led to by the state of the Facts - From the Universality of the cold fit, we conclude that it is a principal part - and then as it is first in time, we infer also that it is first in the series of Causes and Effects - You will believe this the more readily, as I told you that Dr Boerhaave and his Commentators have both in a great measure come into the same opinion

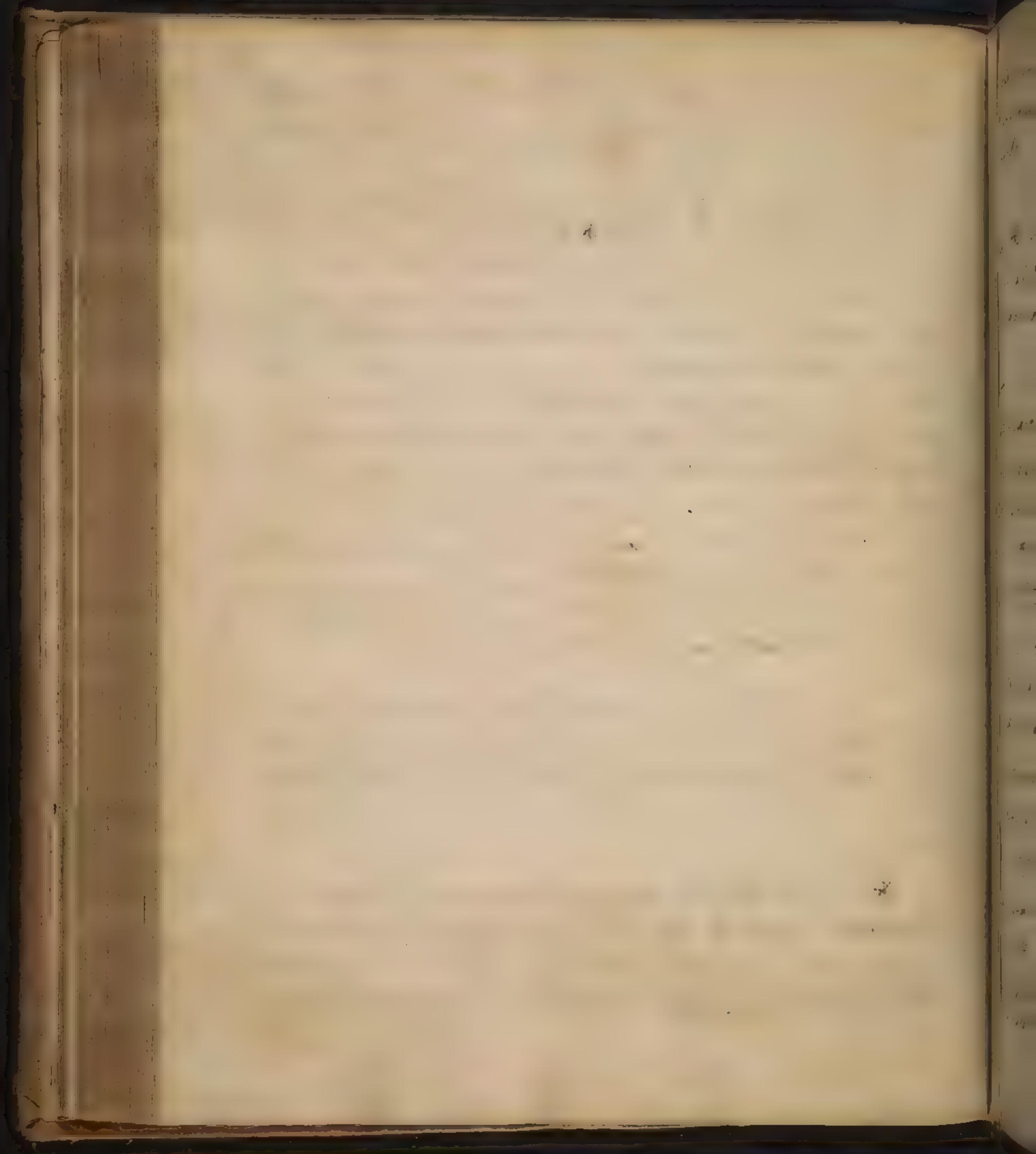


Opinion, as you may see in their writings on this subject, particularly the Intermittent fever. In this they are explicit in giving their opinion, that the Cold fit is the cause of the fit. However Dr Boerhaave imputed the cause of the Cold fit a Lentor of the blood\* obstructing the extreme vessels. But I did not need many words in refuting this Opinion, as it is now given up by the Boerhaavean school; for I showed you that Van Swieten imputed the cold fit entirely to an imperium faciens, or nervous system. I also quoted something at the same purport from Dr Whist and Dr Hoffman, both of whom we found to agree in the same opinion; which in short is this, That the cold fit of fever is an affection of the Nervous system. Thus far I concluded yesterday and this I look upon to be a conclusion of very great Importance, and one which is connected with a great part of the principal Doctrines of our modern Pathology, not only with regard to fevers, but to other subjects in Physic.

But we are not to rest on from the matter in hand so quickly - I am always anxious to examine well, and discover with certainty the fallacies of old Doctrines before

\* Is not this an opinion too general and vague? For Boerhaave seems to have had some notion, though an imperfect one, of Spasms occurring in fevers. He generally indeed means by Lentor as the cause of Obstruction, but

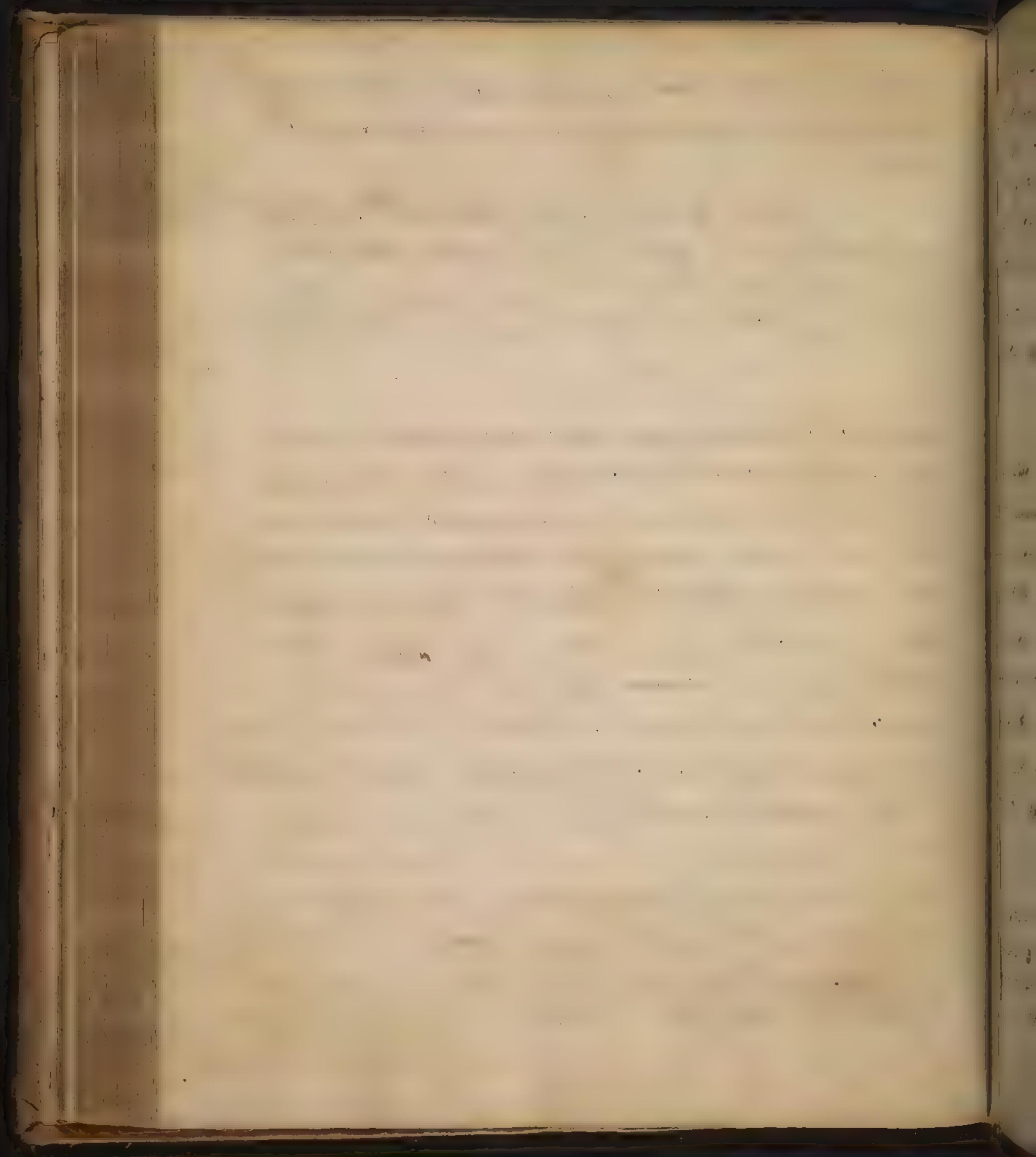
after



before we reject them; and also before we admit any  
thing new, & enquire strictly on what foundation it is  
built.

Before the time of Van Helmont <sup>Physician</sup> only looked  
for the causes of disease in the qualities of the fluids -  
and at this time it was held a general maxim that  
Disease consisted in a certain <sup>the</sup> Tempories of the matter of

— afterwards was expression that apply also to fevers -  
Thus (Aph. 581.) Uvularis Cordis Contractio cum aucta  
"ad Capillaria resistentia, Febris acuta Ideam abolit;"  
and as the remote cause of this Paroxysm, mentions Ingesta  
qua Irritant, suffuant, obstruant, patrescant. (Aph. 583.)  
Again in the Cure of fevers, though his three Indic. are to dissolve  
Lentor (593), he subdivides this (607-609.) into three  
numbers, the second of which is, "quod ibi (in emphatis) hanc  
ad extrema Capillaria ob Febris horum supremo Contractas,  
et hinc arctatis solvitur Layatis febris, et aere Contracta  
tiones Causa ablata. He hints at the same distinction  
under under the Frigus febrile (621.), and under the Anxietas  
(631.). He respectively refers the difficult passage of the blood &  
a Spasmus Vasculorum Contractorum, and the materia  
inflamata, or viscid blood - In (634.) he carefully separates the  
Indication.

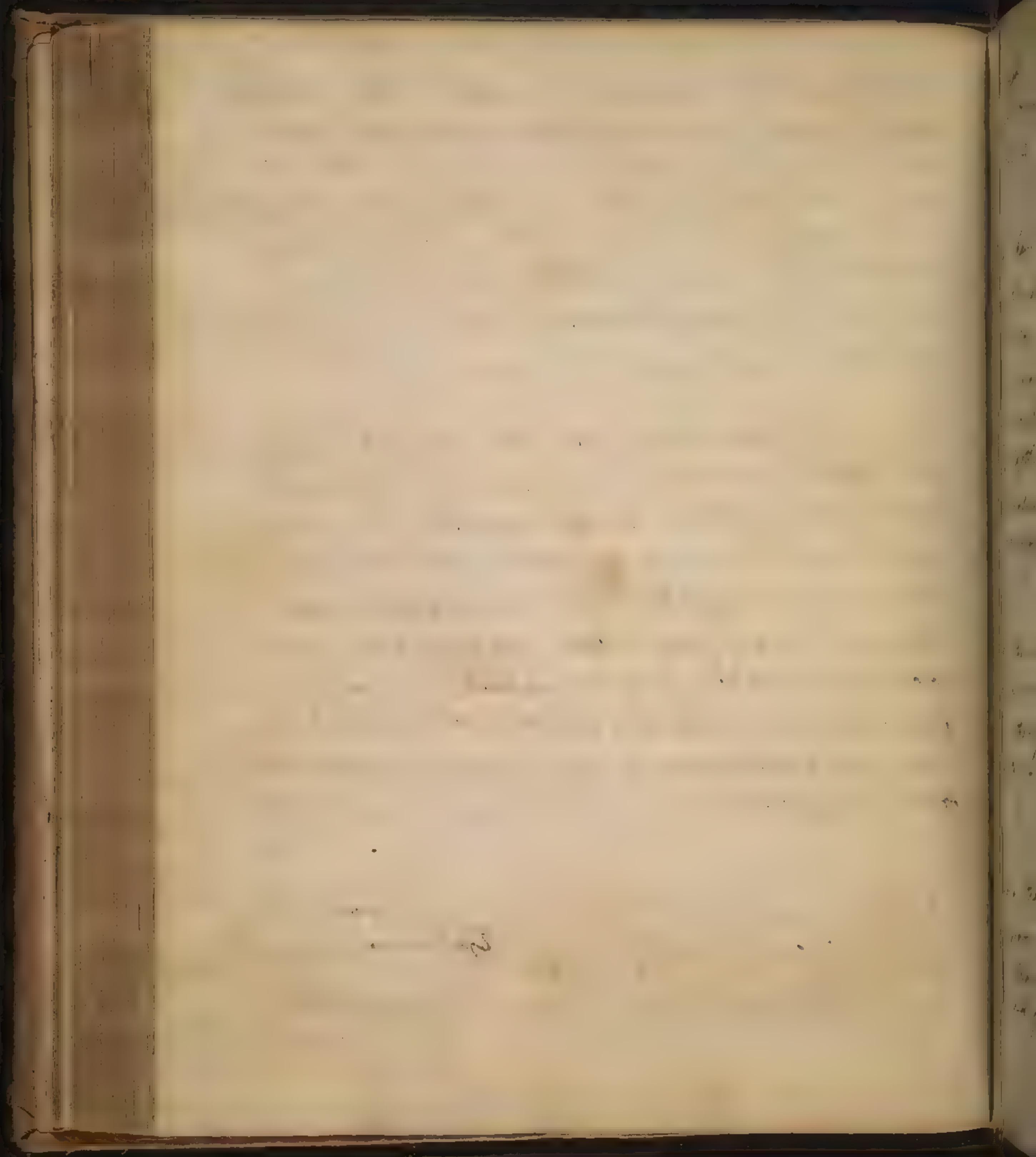


91.

the Body - Thus fevers were imputed to Heat. Van Helmont however advances that the motions of the System were more concerned, and ought to be more attended than the condition of the matter of the body. His system however was afterwards modified by his Disciple Dolens. However along with this there were so many mysterious and fanciful things in his system, and particular Doctrines, that it was not generally admitted, but rather despised by Physicians.

Dolens defines fever to be an increased velocity of the blood. And in this he was followed by Dr Boerhaave. But it is evident, if this were all that constituted fever, our cure would be only to diminish the velocity of the blood. Happy would it be for us if this were so; for certainly we have nothing more in our power than simply to diminish the velocity of the blood, by such applications as diminish the force of the moving powers of the circulation. But Physician well knows the bad consequences that are liable to ensue from the application of such direct means of diminishing the

Indications arising in their two causes, and adopt his remedies to each. In (728) he says *Ephemeris Causarum agnoscit solum motum vehementerorum nec ullam materiem* - Upon the whole, Boerhaave may be ranked among

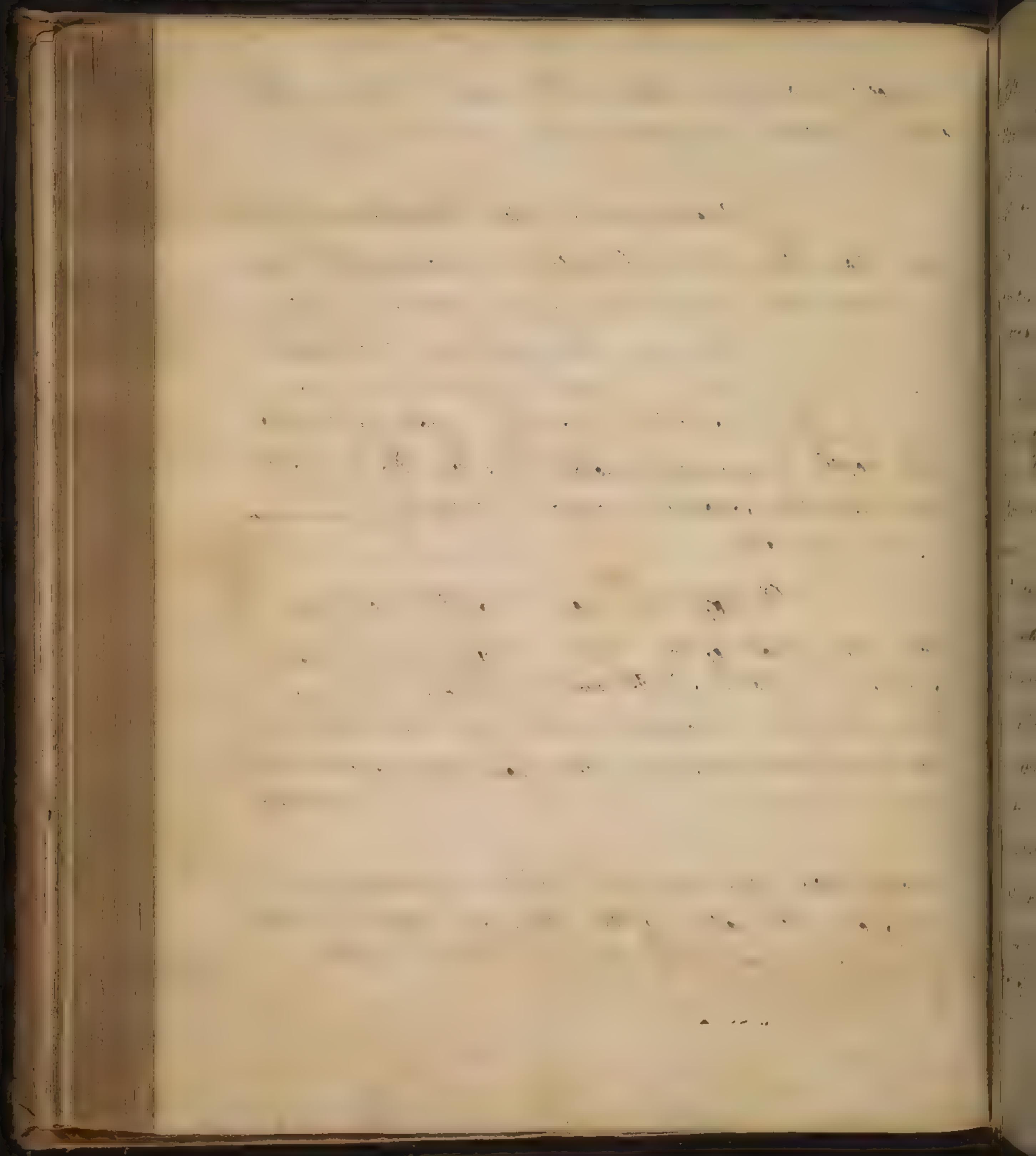


the blood's velocity; and that on the Contrary we are often  
obliged to make use of such means in the Cure of Fevers  
as tend to increase it.<sup>92</sup>

As to our present system Boerhaave and Bel-  
line have the principal share in forming it. They  
apply their attention to the state of the fluids, and impell all  
to Lenton and Asimony. Thus (apt 598.) Dr Boerhaave in  
a few words gives the general cure of fevers, which you observe  
unintt. chiefly in correcting asimony, resolving Lenton,  
and lastly in expelling both. And this Doctrine of his  
was implicitly followed by almost all the Physicians among  
us, till very lately.

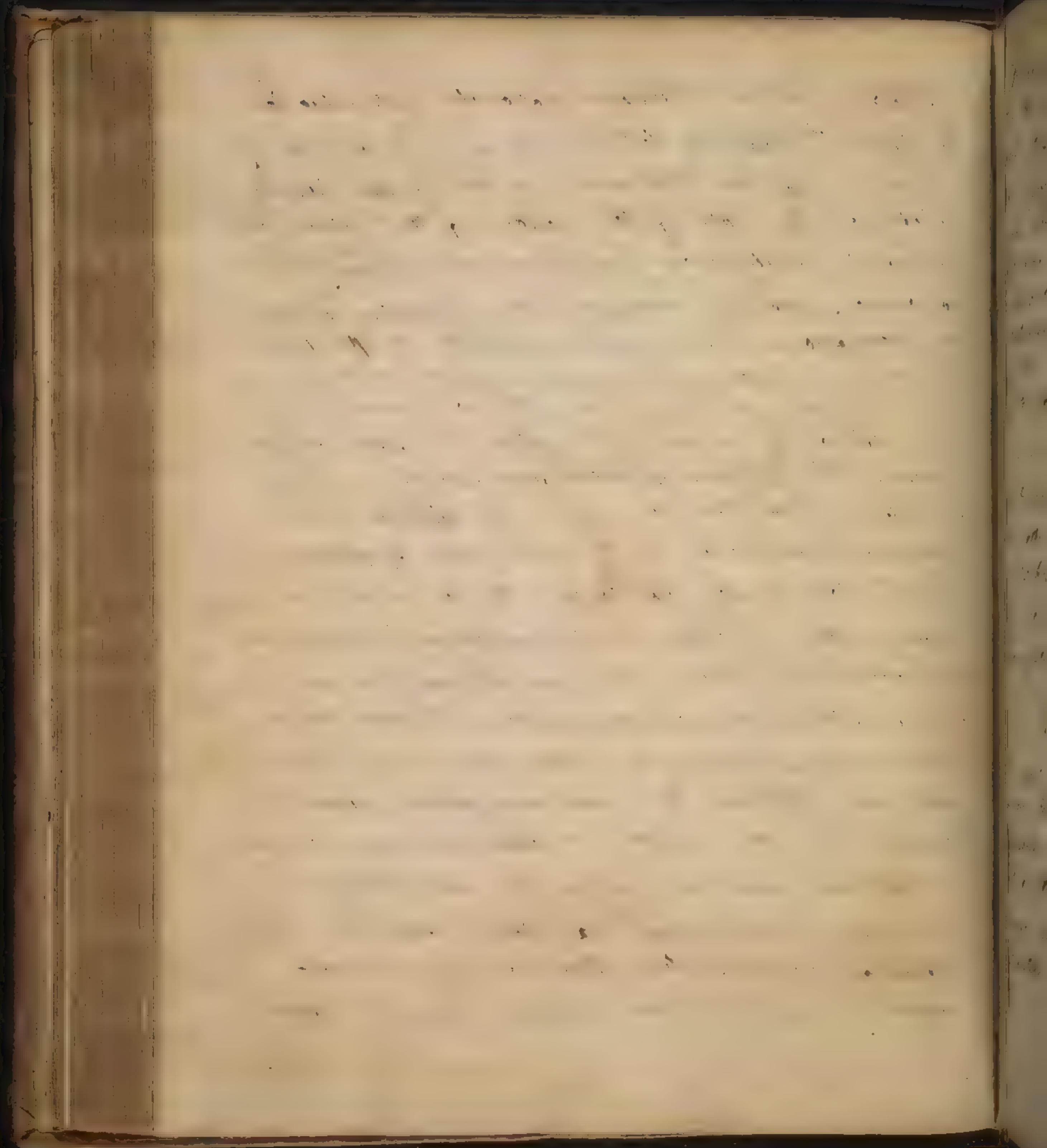
Dr Hoffman was the first who began to  
notice the motions of the System, as being principally  
concerned in disease, and to take them more into his account.  
Him, therefore, I consider as the first, and the one who  
has the greatest honor in the reformation of our modern  
Pathology

among those, who under the influence of strong prejudice,  
got from the nature of the thing and deficiency of their  
own Theory, have been obliged to admit them as  
the cause of fever.



Pathology (vid his *Medicina Nationalis Systematica Tom.*  
 II Part 1<sup>st</sup>. Chapt. 21. Sect. 8.) the sum and conclusion of  
 which is, that the Phenomena of the System depend  
 chiefly on the state of the motions of the System (and  
 Sect. 9. is entirely to our present purpose). Indeed this is  
 so obvious that it is surprising how Physicians did not  
 see it long before. It is true that Willis, Heppen, Baglivi,  
 Bellini and Morton made some small attempts towards it;  
 But Hoffmann was the first who attributes disease principally  
 to the state of the motions of the System. To speak more par-  
 ticularly, Dr Hoffmann considers fever entirely as a change  
 of motion in the Vascular system, and attributes it to a  
 Spasmodic Constriction on the small vessels of the body -  
 and his doctrine was, that however this constriction was re-  
 solved, whether by Nature or Art, as soon as it was done the  
 fever was cured. Hence in the cure he attended to such remedies  
 only as acted on the Nervous system. Though this doc-  
 trine does not upside the whole business, yet it goes a  
 good way. Hoffmann here could only establish general  
 facts, which also may often be ~~the~~ own case. Therefor  
 I shall now make an apology for both Dr Hoffmann  
 and myself in this respect - and this I shall do in the  
 words of Van Swieten (Pag. 528.) "Symptomata  
 quidem ..... ludere."

There

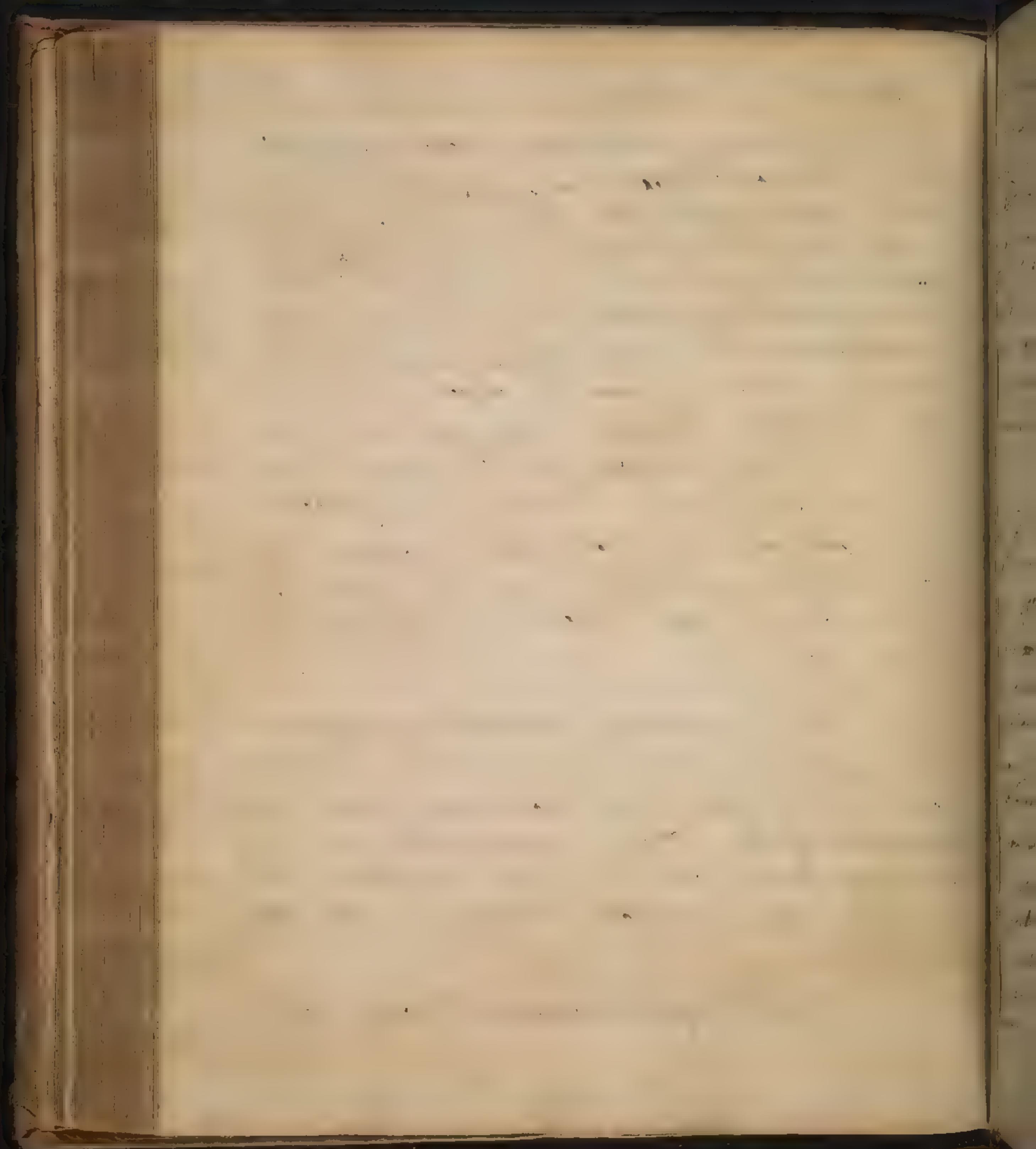


Therefore, from Dr Hoffmann's being unable to go further, the Doctrines he advanced never were received till lately - But now Physicians in general at least allow that in fevers the nervous system is principally concerned - Even Dr Boerhaave in the last Edition of his Aphorisms is of the same opinion; for here besides his Viscositas Liquidi arteriosi, he refers the causes of Intermittent fevers also to an Inertia Liquidi Nervosi. (See also what Van Swieten says upon this subject in his Commentary to Aph. 755. - Pag. 527.) Plura jam hinc.....  
..... Paroxysmos nequa fuit, &c. I use his very argument to prove the point in question - He illustrates the same in other parts, and at last comes to a conclusion, Pag. 520. "Ex hec tunc dictis &c." The sum and substance of which is shortly this, that the Fever is an affection of the Nervous system.

Thus we have examined the Progress of Opinions with respect to the subject at present in hand, and at last have come to this conclusion in the Boerhaavian school, and that established by the authority of one of the greatest men in it, viz. that the Cold fit of Fever is an affection of the Nervous system. Therefore I need not adumbrate other Authorities -

Many of you perhaps will wonder why I

mention

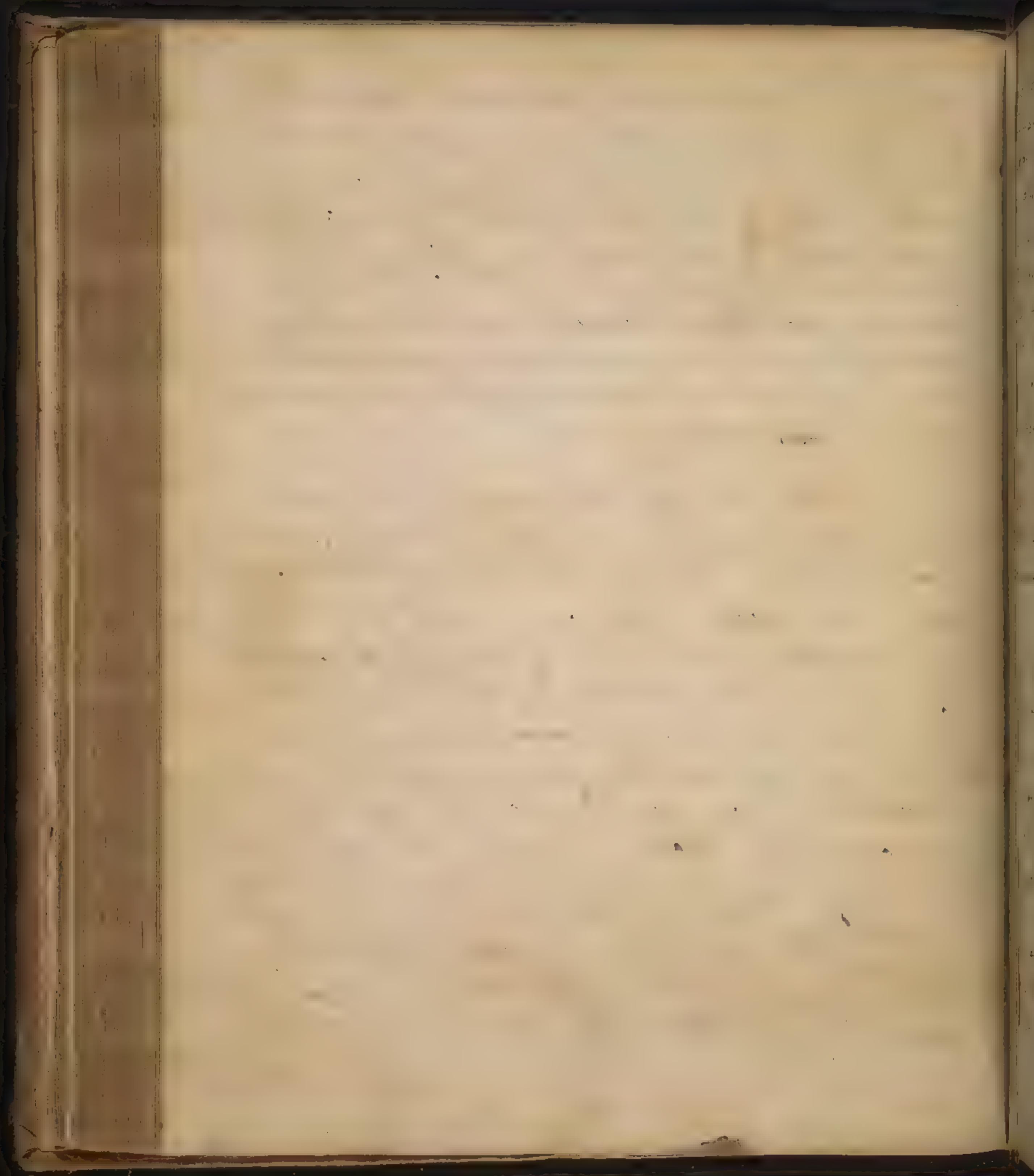


95.

spend so much time in proving what appears so plain? But if so, it must arise from your being unacquainted with the prevailing Opinions of Physicians, many of which, as they are held by some of the most reputable Physicians of Europe, it is our business to examine with due diffidence. Besides I think it absolutely necessary and a matter of the greatest importance, that Students be made acquainted with the different opinions of Physicians prevailing, especially of such as are in every respect our Equals, and therefore undoubtedly deserve our attention.

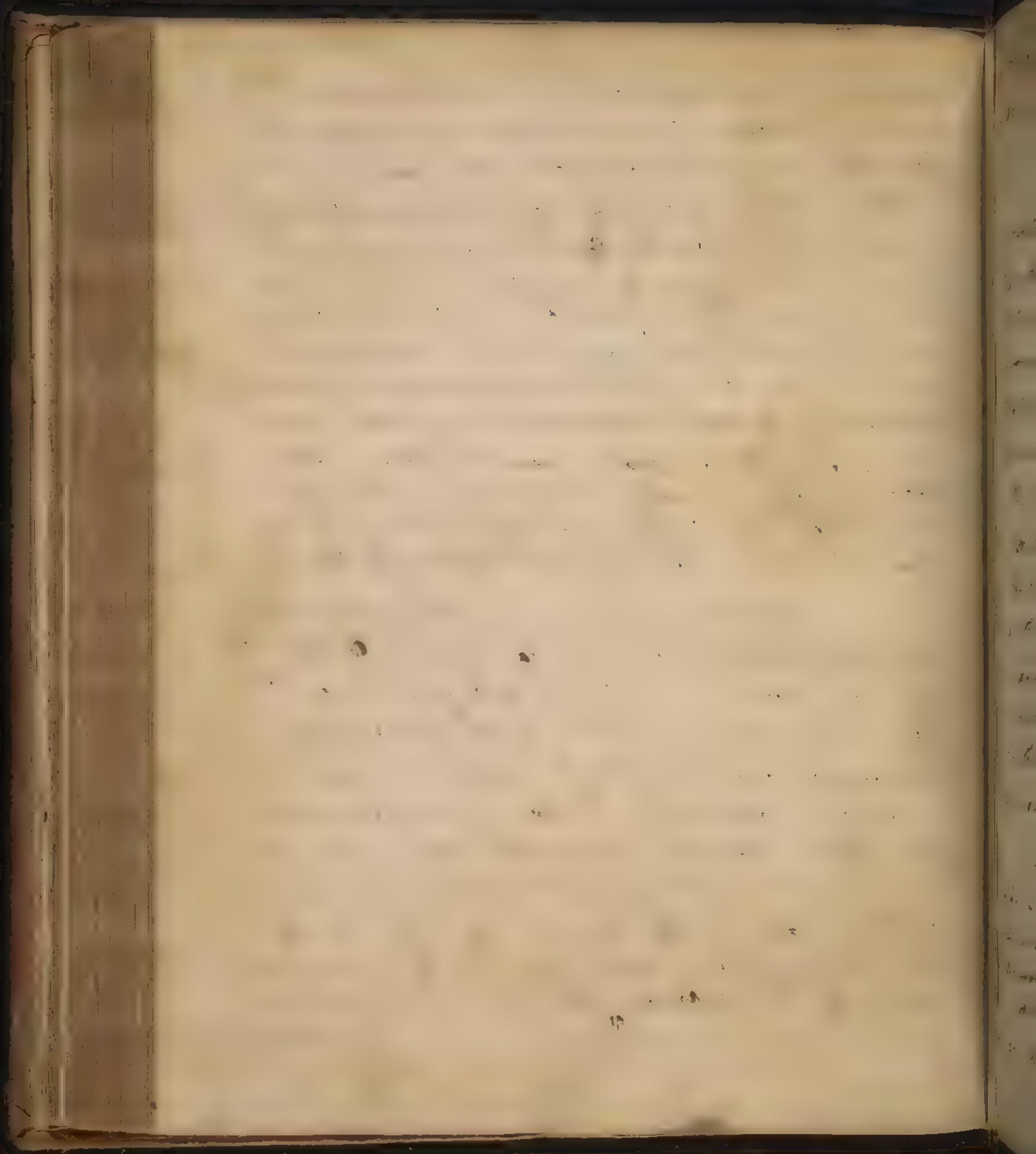
Now with regard to the Opinion of Dr. Senac, who as he holds the highest rank, is, I think, the person of the greatest medical abilities in France. He (see De l'Acad. pag. 9.) after repeating many opinions that have been proposed concerning the causes of Intermittents, concludes that inquiring after this cause in the Nerves, is empty speculation. There is a strong declaration against the Opinion just now delivered, which we might think so well founded. If you attend to what M<sup>r</sup> Senac here says, you will find that it is expressly directed against what Van Swieten has said. and every one that is divided with the disputes of Physicians, will certainly find great interest in this dispute, notwithstanding between two Physicians who possess the highest rank in Europe. However, I think there is but little in what M<sup>r</sup> Senac

says



says here - a great part of it is mere declamation -<sup>96.</sup>  
and many Phenomena of the Nervous system, which he  
speaks of as being so remote from sense, are as much  
the Objects of sense as any part of the Animal Economy,  
and much more so than the Affections and Conditions of the  
Bile, which he considers as the cause of Intermittents. No one  
indeed will undertake to prove that the Nervous Solum  
modo (as he speaks) are concerned here. But we will  
apost and maintain that they are primaries and specially  
concerned. If Dr Senac had known how much the nervous  
system is connected, and what a share it bears in other  
diseases, I imagine he would not have said in this place  
what he has <sup>said</sup>. However, the greatest part of it is indeed no  
thing but Declaration, below the dignity of a Physician.

after this I presume you will be greatly sur-  
prized to find that Mr Senac at last comes into this  
Opinion which he so loudly condemns (in pag. 25.  
Chap. 5 - also other Examples in Chapt. 6. Pag. 26 & 34.)  
I am sorry to observe that even great men cannot  
be always consistent. It plainly appears upon  
the whole, that Mr. Senac first says on this sub-  
ject is not directed against the Opinion itself,  
but only as it is the Opinion of Van Swieten;  
for at last we find that in reality Dr Senac is as  
much of the opinion that the old fit, an op-  
tion



affection of the nervous system as either Van Swieten<sup>97.</sup>  
or we are.

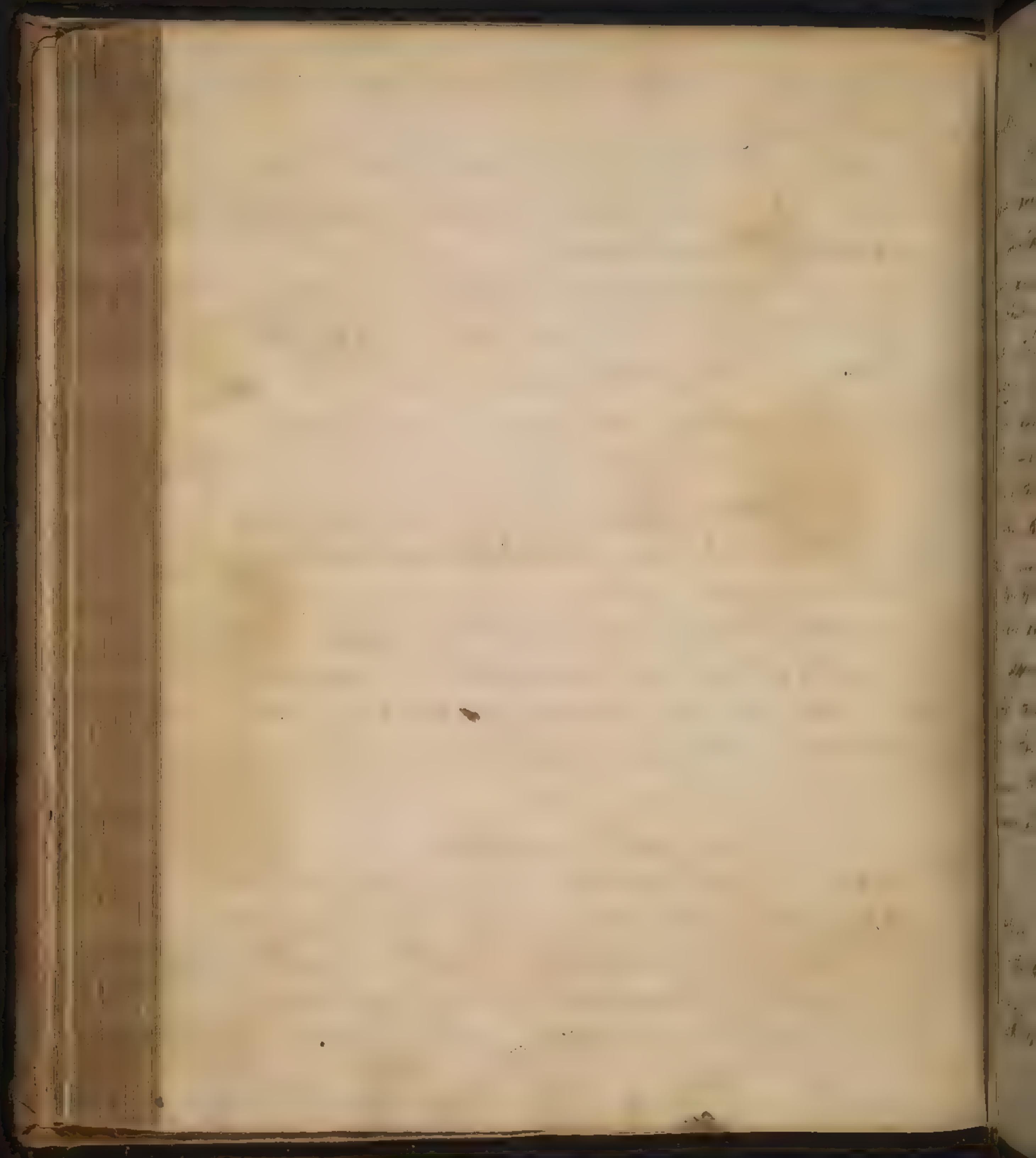
In considering the Proximate Causes of fever,  
I have mentioned two Positions -

- I. That the cold fit is the part which principally constitutes the disease, and is the cause of all the other Phenomena that follow.
- II. That the cold fit is an affection of the nervous system.

The arguments in proof of which I read you from Van Swieten - To his I would add another argument, which he also, seems in some measure to imply, viz, That as the cold fit especially affects the motions of the system, and as these are only performed by Muscular Fibres, which depend on the energy of the brain, consequently these motions must depend on an affection of the Brain and Nervous System.

Now notwithstanding all this, still we find in the works of Boerhaave and Van Swieten nothing but morbid matter spoken of, as the cause of fevers, Lentor and Acrimony, their Resolution and Expulsion &c; also even with them these general Principles above mentioned, are apparently so manifest and established.

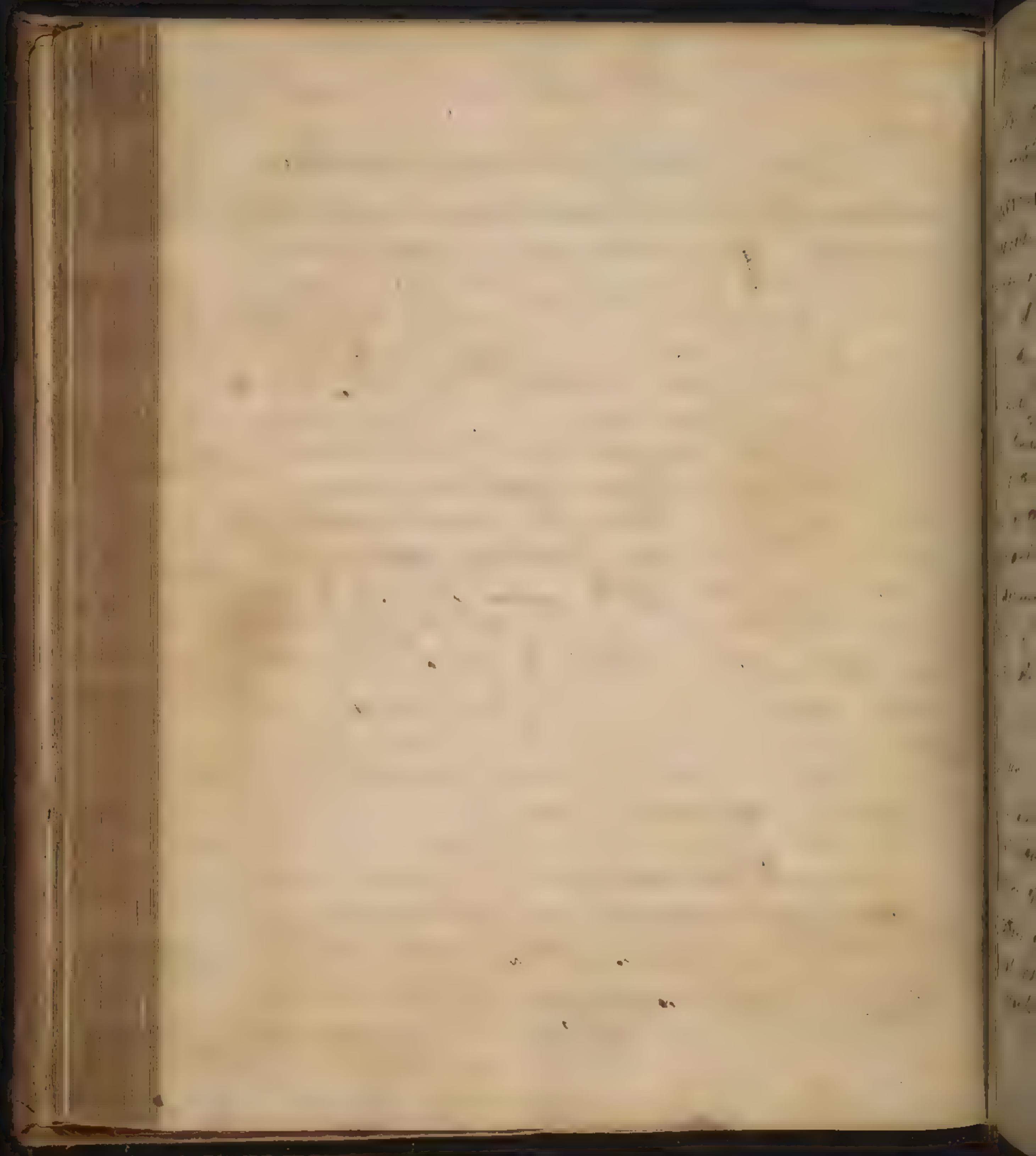
Next



Next we are to consider wherein the <sup>98</sup> cold fit  
consists.

In the first place, I here agree with Dr. Bowe  
have, and say with him that the cold fit is owing to  
an Inertia of Liquidi Nervosi, or, as I choose to use a  
more general Expression, or one to the same purport,  
but which does not respect or even applicable to any parti-  
cular Theory, I rather say a Debility of the Nervous  
Power. I think that the Lethargy, debility of the  
system, and insensibility which in many cases is so remark-  
able, manifestly shew that there is present at the begin-  
ning of the cold fit a Debility of the Nervous power. And  
this from the nakedness of the surface, shrinking of the body,  
which imply a diminution of the Powers that propelle  
the blood & the extreme Leptos, appear especially to affect  
the heart and arteries. I say then that the cold fit of  
Fever begins with a Debility of the Nervous power;  
and that this is the cause of all the Phenomena that  
follow. How we are to explain this, and shew in what  
manner they are connected, is not at all obvious; and  
here begins our difficulties in Theory.

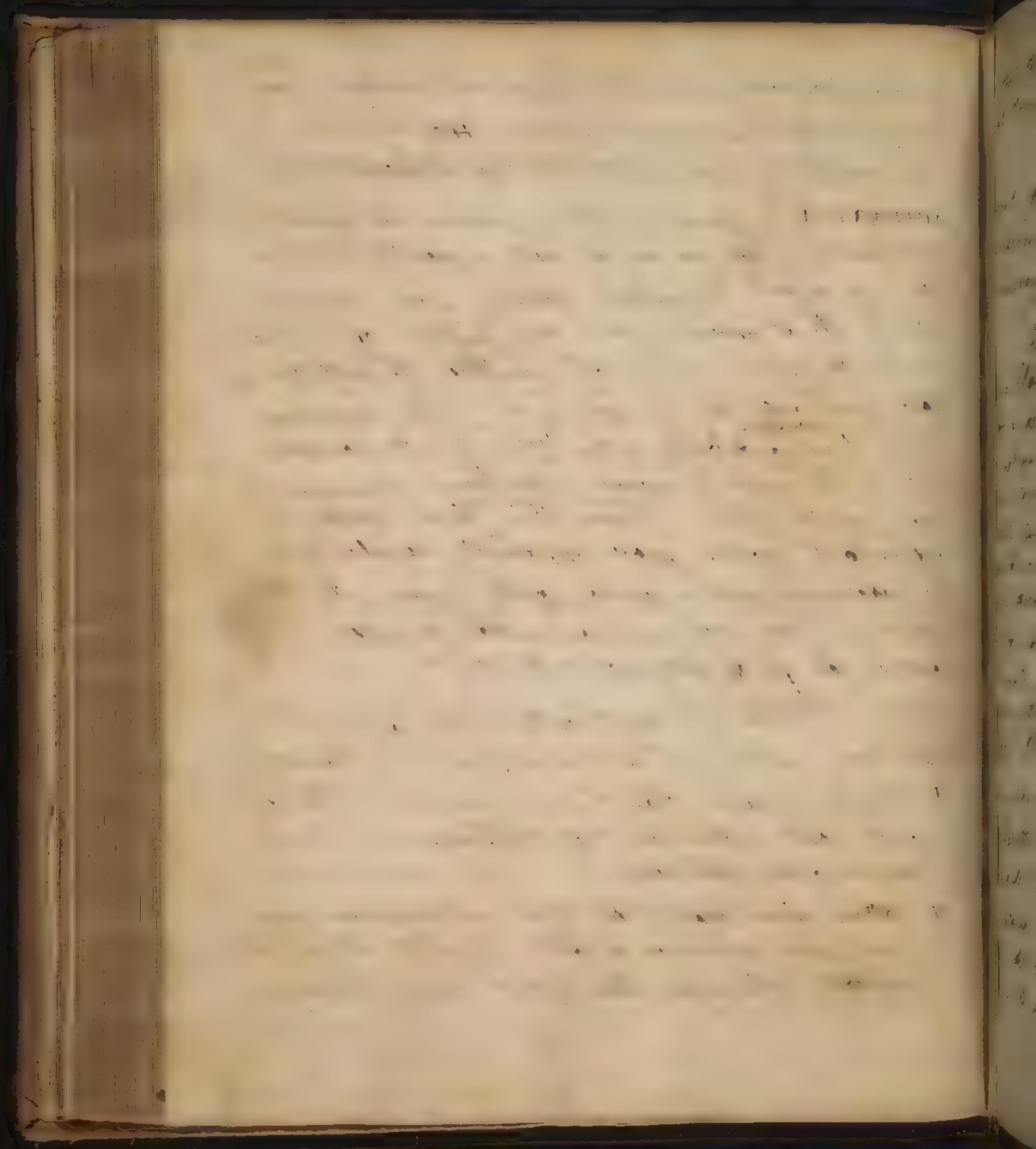
We can only refer it to a general Law of the System, which, however, is very well established, and is shortly this, that from the Nature of the Animal Economy, whenever a deviation from the natural state of health takes place, there is a tendency, produced by



by this deviation, and after <sup>ward</sup> an actual exertion of power  
to restore the System to its natural healthy state. This  
Law constitutes what is called the *Sip Medicatrix* or

*AUTOKRATHA*, so famous in Physic ever since the days of  
Hippocrates (Those who are not wholly acquainted with this  
Law may consult Dr Gaubius's Pathology, from Sect. 633 to  
640.) We at present assume the *Existence* of such a law  
in the system, as universally admitted. We shall there  
fore give <sup>to improve</sup> only this example of it. That whenever any  
cause tends <sup>to improve</sup> a debility of the Body, it is the consequent  
effect of this power to produce a reaction, and increase the  
Energy of the System. Hence it is that Sedative and  
Reffigerant Powers prove apparently stimulant, viz.,  
by producing such a reaction of the System. And this,  
I think, is the most rational method of explaining  
how the cold fit of fever produces the hot fit.

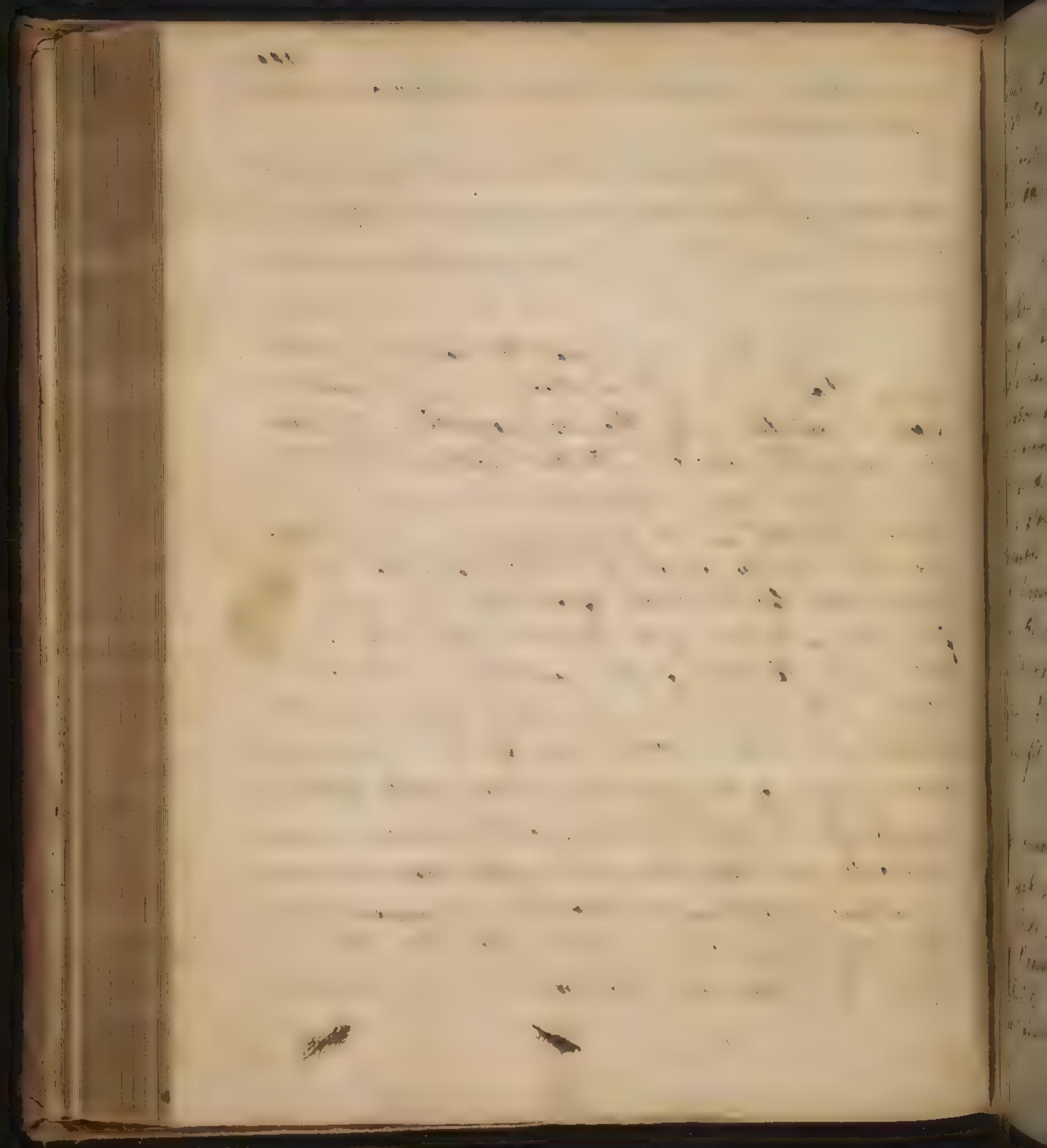
But this power of the System of which we  
have been speaking, has been explained in two ways.  
I. It is said by some, that it is an operation of the ratio-  
nal Soul, independant of Mechanism! This is the  
Doctrine of the Stahlians.  
II. Others assert that it is the effect entirely of one corpo-  
real part acting on another - or that the one state  
necessarily follows the other from Laws of Mechanism,  
i.e.



i.e. that their succession depends entirely on mechanical Principles. — 100.

With regard to them I shall only say at present, that the last is to be enquired into always and carried on as far as we can go with any precision or accuracy.

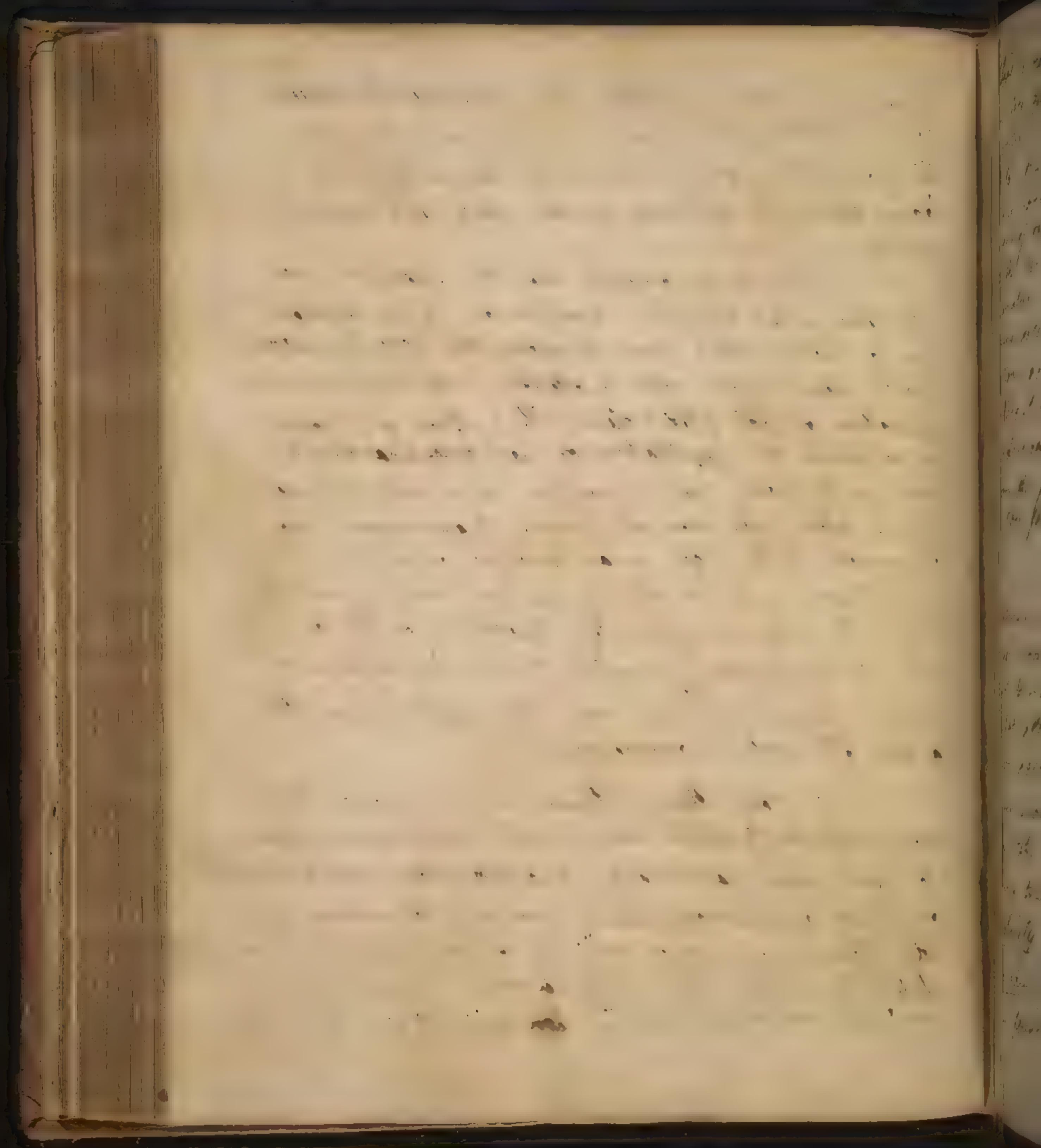
First, then, I say that the extreme vessels being elastic, when in the beginning of a Cold fit, from a debility of the Powers propelling the blood, it is not pushed forward into the Extreble Vessels, they must certainly suffer a constriction, even from their elasticity. But this, you will find, insufficient, and will be under the necessity of taking in also somewhat else respecting their Constriction, from their muscular power; for if the contraction of the extreme vessels arose only from the simple elasticity of their coats, they would be immediately filled again when the action of the heart was restored. But this is not the case; for the Thirst, dryness, dullness of the surface, &c, which still continues, manifestly shew that the Constriction remains a considerable time after the action of the heart and arteries is restored perfectly in the Hot fit. It appears, then, that the Constriction which takes place here is owing to a spasmodic Constriction of the extreme vessels.



Vesels - and this constitutes the Spasmus Paroxysmus  
de late Pathologift (Midzhd) by whom and many others  
this Constriction taking Place in the Cold fit of fevers is  
looked upon as the cause of the hot fit which  
follows -

It is to be observed that this Spasmotic Con-  
striction is at any time brought on by the applica-  
tion of Cold, which seems to affect the body by produc-  
ing a Constriction that is attended with the peculiar  
sensation of Cold (Vid. Celsius Lib. 3 Chap. 9.) Now as  
we see from the application of Cold to a particular  
part, as the hand, that a reaction is produced to the part,  
viz. a glow, with heat and redness, I can imagine how  
Cold applied to the body may produce a general reaction  
of the Brain - And as the Constriction that is produced  
is on the extreme vessels, the Reaction of the brain  
will be particularly directed to the Sanguiferous  
system, viz. the heart and large arteries; and thus  
a hot fit will commence.

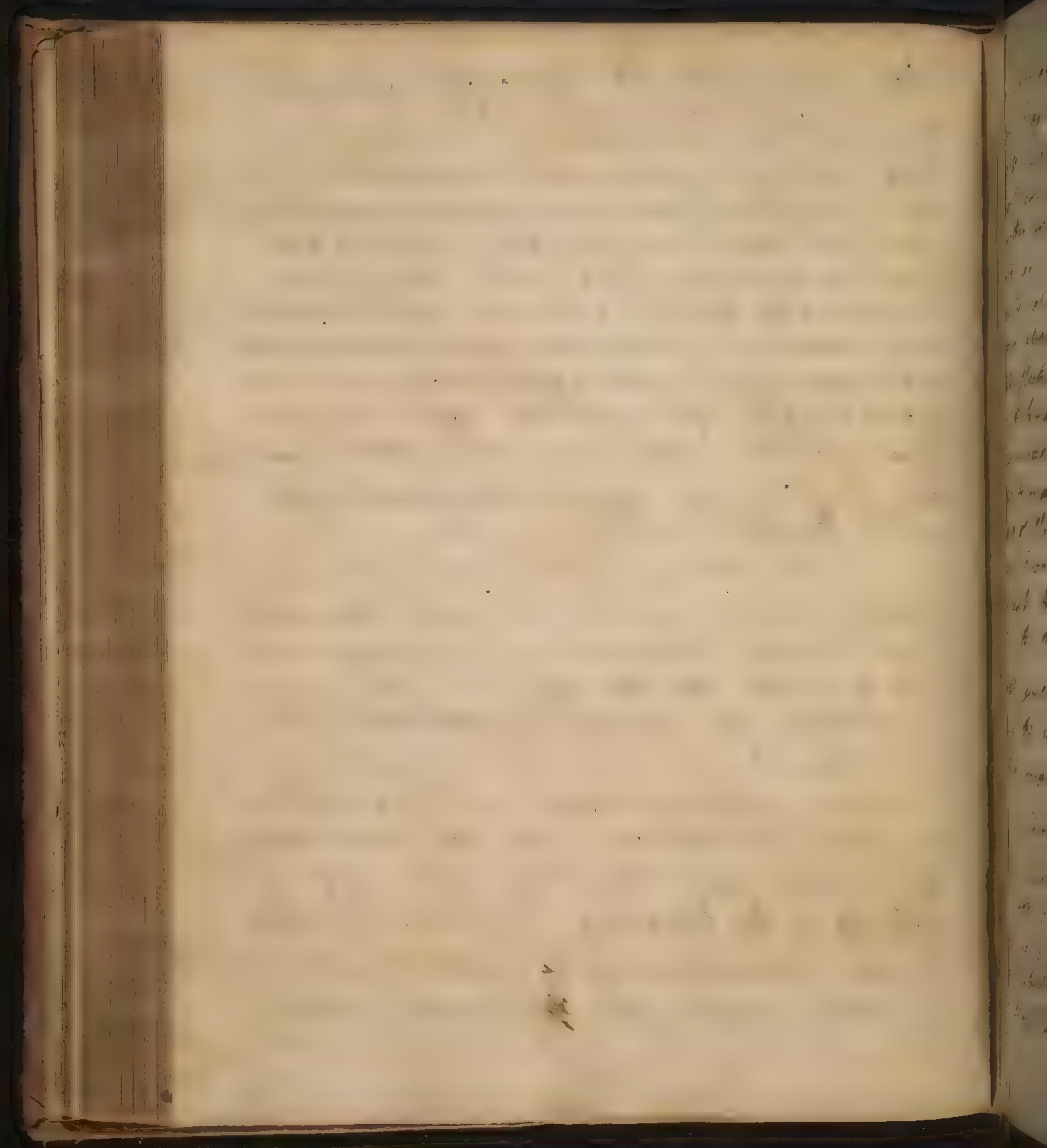
Now, then, I think we have got a Theory  
that connects together the several Phenomena of fever.  
To speak more particularly, I consider the remote cause  
of Fever as a poison, which weakens the energy of  
the Brain, or induces debility on the System. This  
debility shews itself in the weakened action of the  
heart and larger arteries, in consequence of which the  
Blood



102.

blood is not propelled with its usual force, and therefore in less quantity to the extreme vessels. Hence they are contracted both by their elasticity and muscular power, or vis & ita. But more particularly they are spasmodically affect ed in consequence of the funnel of cold, owing partly to the want of the determination of the blood, and partly to that of the nervous energy to the extremities, which prove a stimulus to the ~~affection~~ action of the brain - and this reaction being determined to the heart and arteries, gives an increased action, or hot fit, which subsists as long as the stimulus exciting it subsists, that is, until the ~~affection~~ to the extreme vessels is removed, and their proper action restored; as appears from the flowing of sweat, and the restoration of the excretions formerly interrupted.

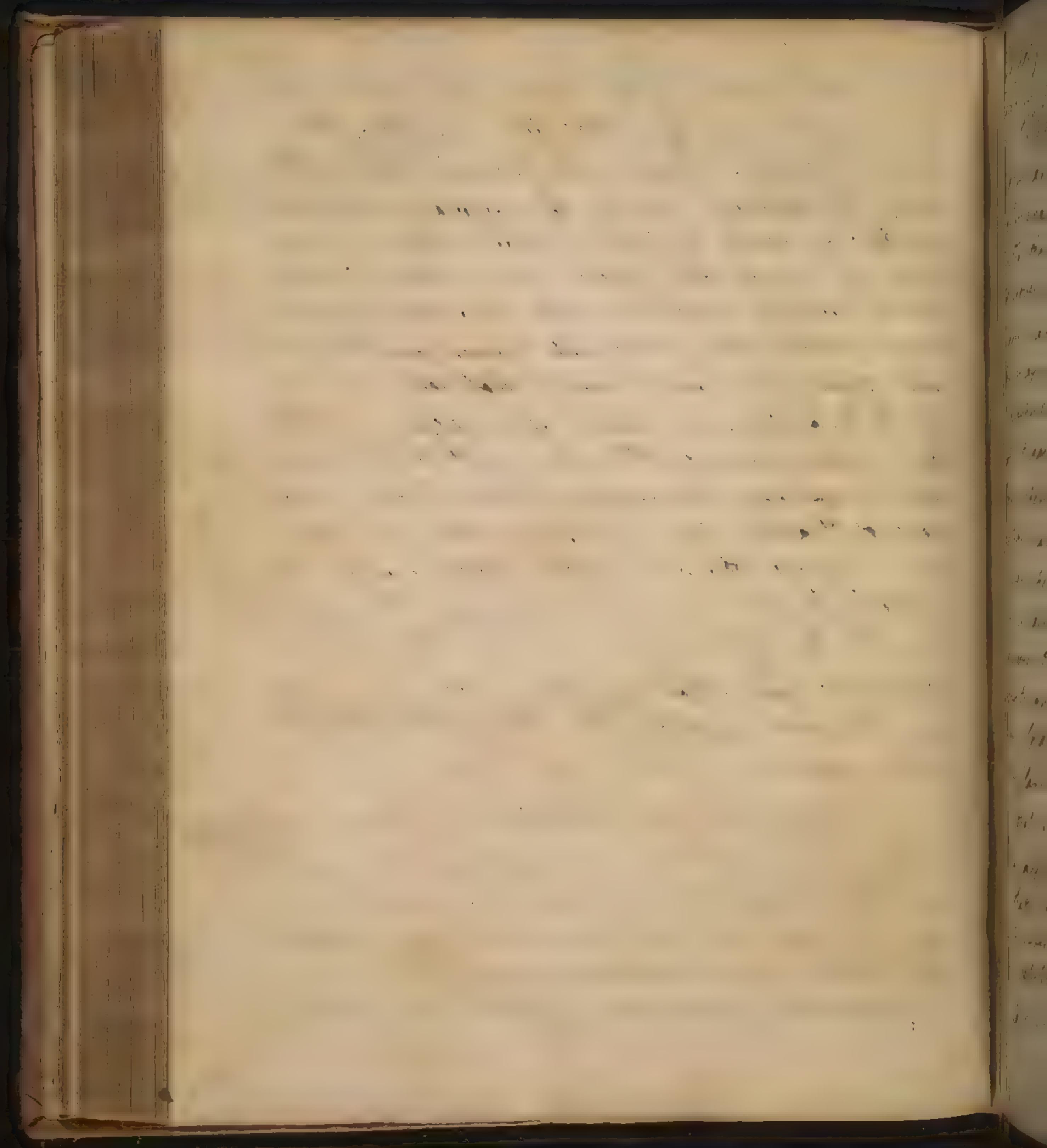
This Doctrine seems to recommend itself by its coherence - The only difficulty is to explain the mechanical connexion between the several parts of it. But not to mention that this difficulty is not so great as what attends other Theories, and that the merit of ours does not depend upon the explanation or connexion of its several parts must be admitted; but, (as I take it to be the case) upon the several parts being true in fact. Thus I have given proof of Ability in the beginning; this followed by a Spasmodic Contraction of the extreme vessels; which we found almost constantly brings on a hot fit, or



103

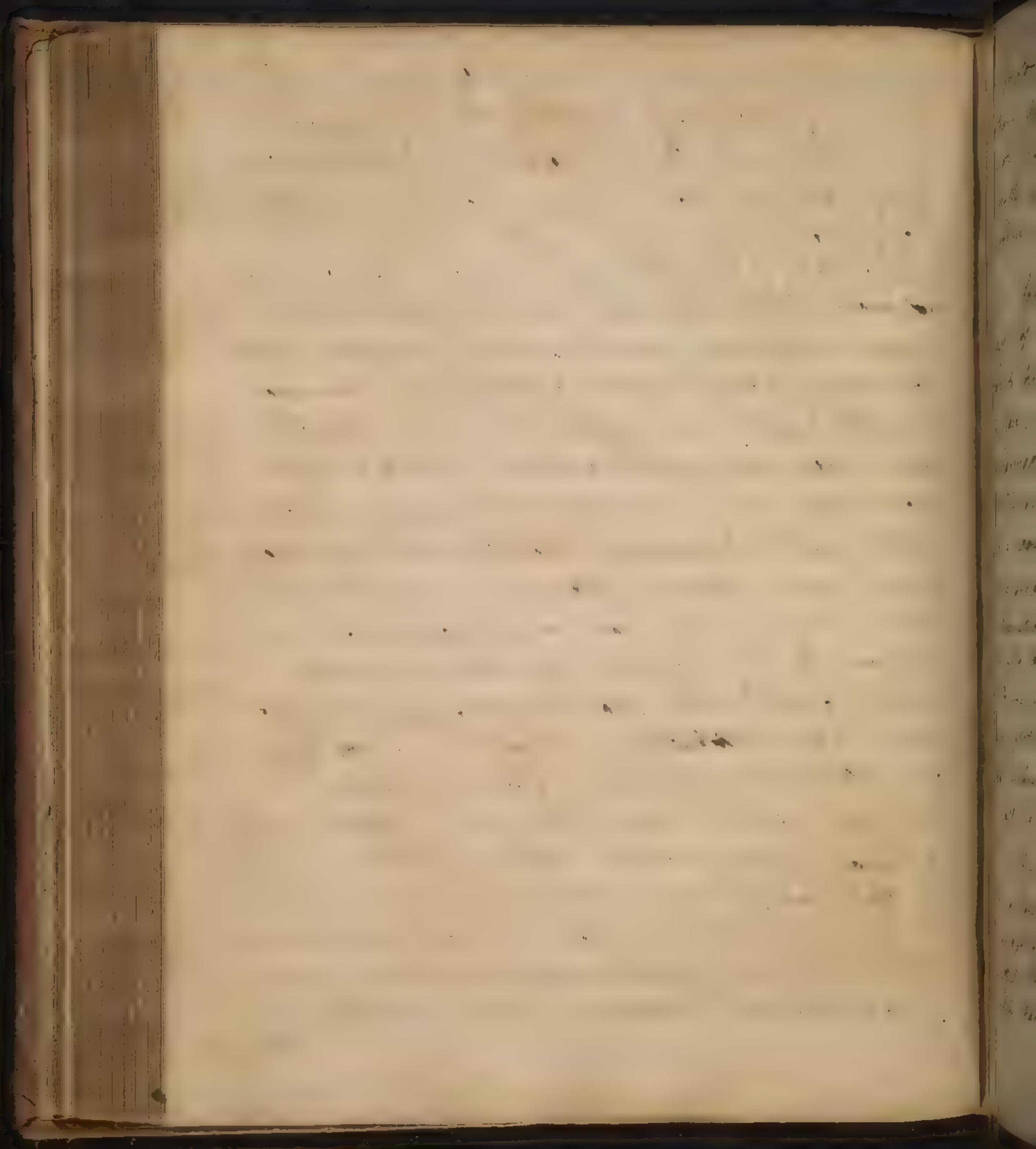
or increased action of the heart and arteries. There  
fore I say it is manifest that fever consists of three  
parts, Debility, Spasm, and increased action of the  
heart and arteries - and as these regularly succeed one  
another in point of time, I consider them in the same  
order as Causes and effects - and altho we should  
not be able to explain exactly how their mission  
comes about, that is, how such causes come to produce  
such effects, yet I must assert, that the more dis-  
tinct knowledge we have of the different States  
thus succeeding one another, we shall be the more  
able to manage, and properly to limit the several  
parts of Practice, than we should otherwise have  
been! I consider this as a doctrine that is sufficiently  
evident to me; but I would have you to examine  
it with the utmost vigor - and to this purpose I  
shall give you what assistance I can, by mention-  
ing the several difficulties that present themselves,  
which might be objected to my theory.

First, with regard to the three Stages, of which  
I said fevers consisted, the two last, the state of Spasm  
and hot fit, are the most evident and universally  
observed, so that there certainly do take place - But  
the Debility is not always manifest - accordingly  
Dr Hoffmann's System goes no further than the Spasm  
and



and not fit, not taking in debility at all - and<sup>104</sup>  
indeed in two Orders of Pyrexia, the Hemorrhagia  
and Phlegmasia, there is no debility at all, (but only  
Spasm and overexcited action - so that perhaps Dr  
Hoffmann's system may be right - accordingly it is  
objected that, if the existence of a previous state of debility is  
not proved to be universal, but it be granted that  
Spasm arises here from something else than debility,  
why may it not be so in proper fever? This may  
at present give some difficulty, but we shall find  
that it does not affect us much - I shall hereafter  
show, when we come to consider the Causes of Infla-  
mation and Hemorrhagy, that the production of spasm  
etc. even here is to be explained in our system -  
There is always a previous debility or something  
analogous to it - However, after all the objection  
ambutes only to this, that Pyrexia depends universal-  
ly on Spasm, but that there is a difference in the Case  
of Inflammation and proper fever; and though it is  
true that a debility does not take place in Inflammation and  
Hemorrhagy, previous to the Spasm, yet this does not  
say that debility does not take place in fever - in which  
I will undertake to prove that the Spasm always arises  
from debility; for, I say that, debility is always present  
in fact when the Phenomena show it. Such as

the

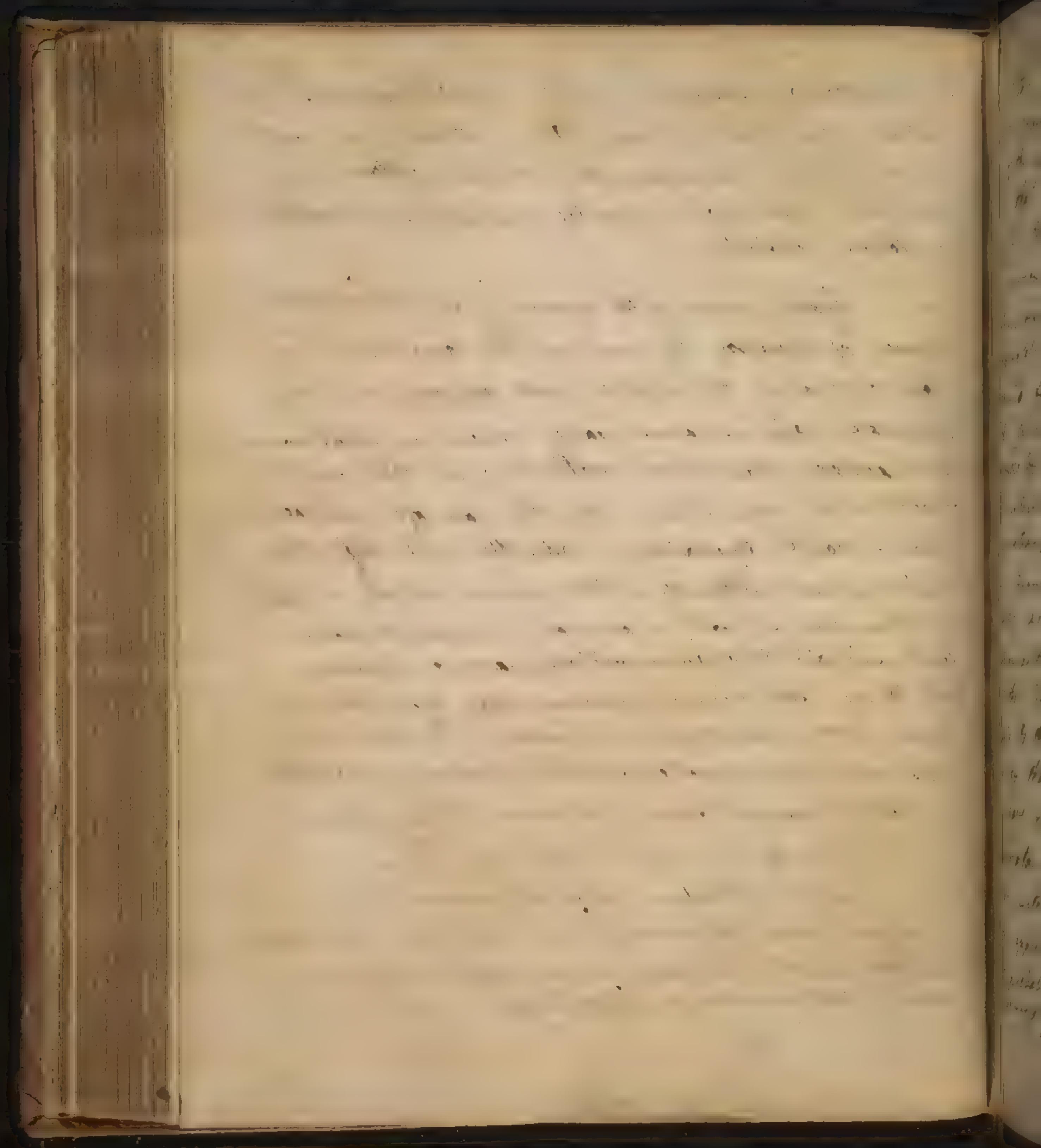


the Symptoms of Languor, Lassitude, debility of the voluntary motions, Anorexia, Delirium, &c. - Moreover some of the remoter Causes, and perhaps the most no<sup>t</sup> of them, are evidently Causes of a Septic nature, or such as tend to produce debility -

Again, supposing the Causes of fever to be distinct Causes of Spasm, they must at the same time be supposed to produce the debility which appears so evidently to take place: and we cannot easily perceive in what manner the Spasmodic state should exhibit first the appearance of debility and immediately after the state of increased action. Such a double operation is admitted with difficulty - But a greater difficulty still remains, which is, that the operation of Cold is commonly supposed to produce fever, and said to be an immediate cause of Spasm - But to me nothing is more obvious than that Cold in producing fever, must operate by inducing Debility - and I expect when the operation of Cold is properly understood, we shall be relieved from this seeming Embarrassment.

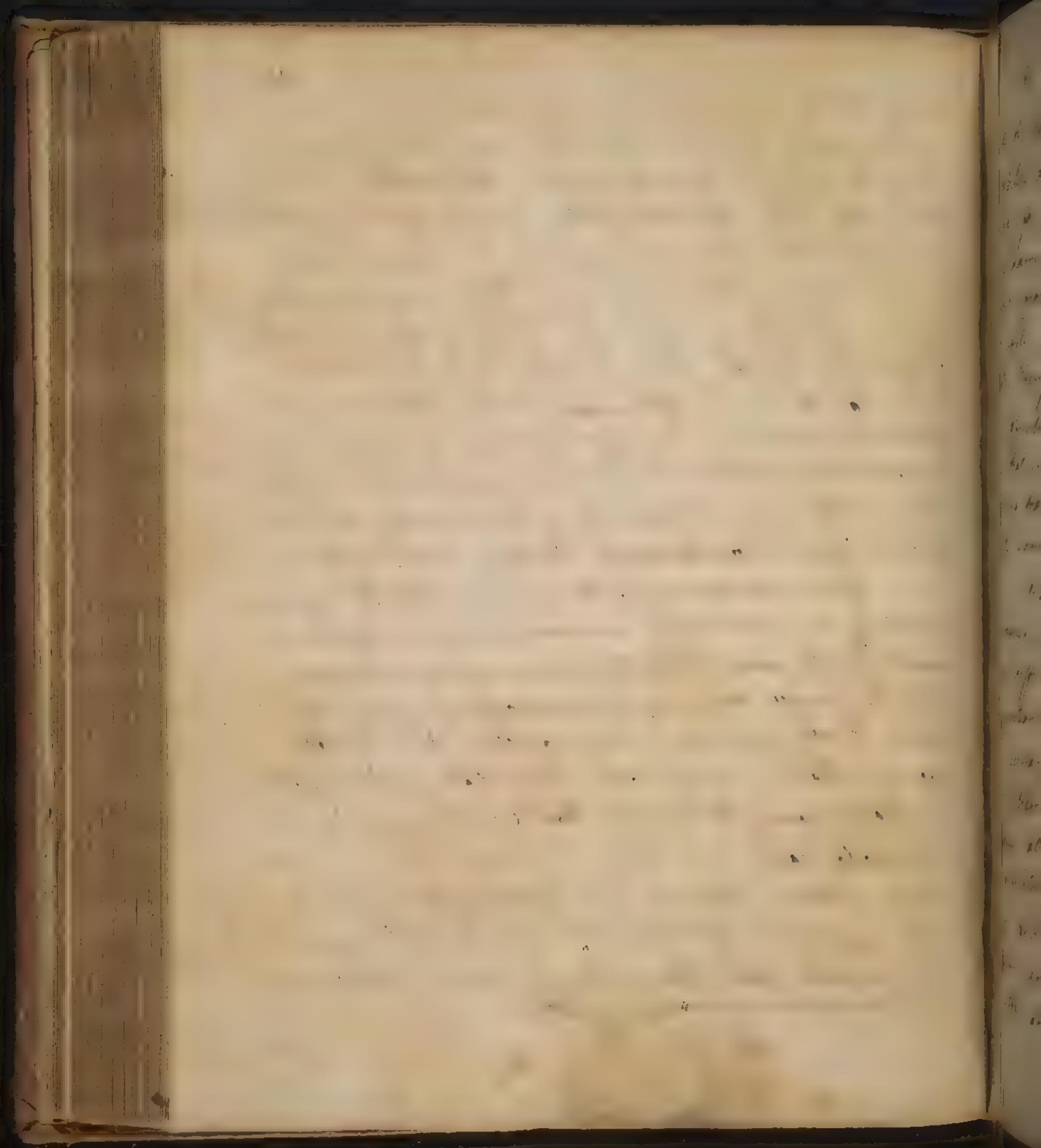
First, then, I presume that when Cold acts alone upon a sound and entire body, and produces Pyrexia, it is always of the Inflammatory kind - and to me it is very doubtful whether Cold can produce permanent fever, unless debility has preceded, or topical affection intervened -

Now



now if this be so, you will observe that, like the argument drawn from Inflammation and Hemorrhage, the case of the cold fit does not apply - and further, if it be true, that cold does not produce a proper fever, unless it be applied to the body already subjected to causes of debility, i.e. previously weakened; it will rather concurs in establishing our Theory - Now the effects of cold are hardly inscrutable, except when it acts on a body previously weakened; for we are often exposed to cold without any bad effects - Every one is sensible that fever is hardly ever produced by opposition to cold, even considerably vicissitude of it, unless circumstances of debility concur, as from evacuations, Drunkenness, Venery, Convalescence, &c - From this analogy too we infer that, the causes of fevers are commonly Sedative powers, or of such a nature as to produce debility; because when introduced into the body they are remarkable for rendering us liable to the injurious action of cold - and therefore we say, that in most cases, when cold produces fever, we have reason to believe that Contagions and miasmata have been taken in, but remain in the body without showing any effect, until excited by the application of cold - We shall hereafter render it probable that Miasmata may concur with cold in producing fever when not excited.

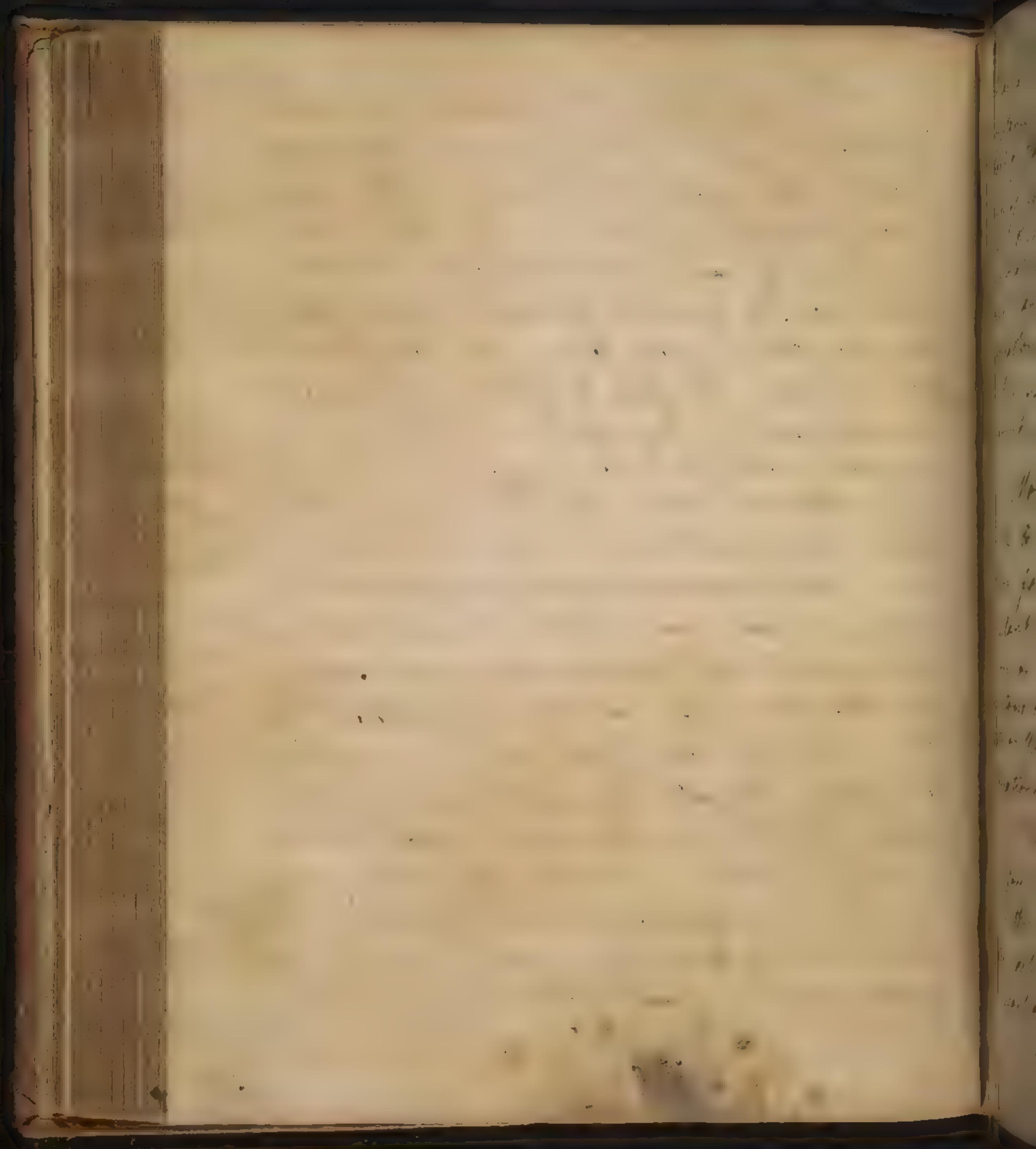
W  
W



107.

It often happens that Contagions are introduced into the body, which, though they do not produce a degree of debility alone sufficient to give occasion to the Sperm necessary for establishing fever, yet induces such a state as easily admits of sperm, and the consequent Circumstances of fever, from the occasional application of a degree of Cold that would otherwise have had no evident or considerable effects. Therefore the effect of Cold in producing fever, is no objection to its being founded in Debility - since we find, that in order to it having effect, it is commonly necessary that such Causes co-operate as evidently act by directly inducing debility.

But I shall carry the Objection still further - for though I would make use of the above fact to obviate very difficultly, viz. that Cold does not take off the proportion of previous debility, but that this is commonly necessary to its taking effect; yet it may be alledged that, extreme Cold applied does sometimes act by itself and produce all those symptoms which we have imputed to debility - This we will allow; for Cold in many cases acts as a debilitating cause, or powerful Sedative, and in certain Circumstances destroys life altogether, and this without producing any Sperm to act



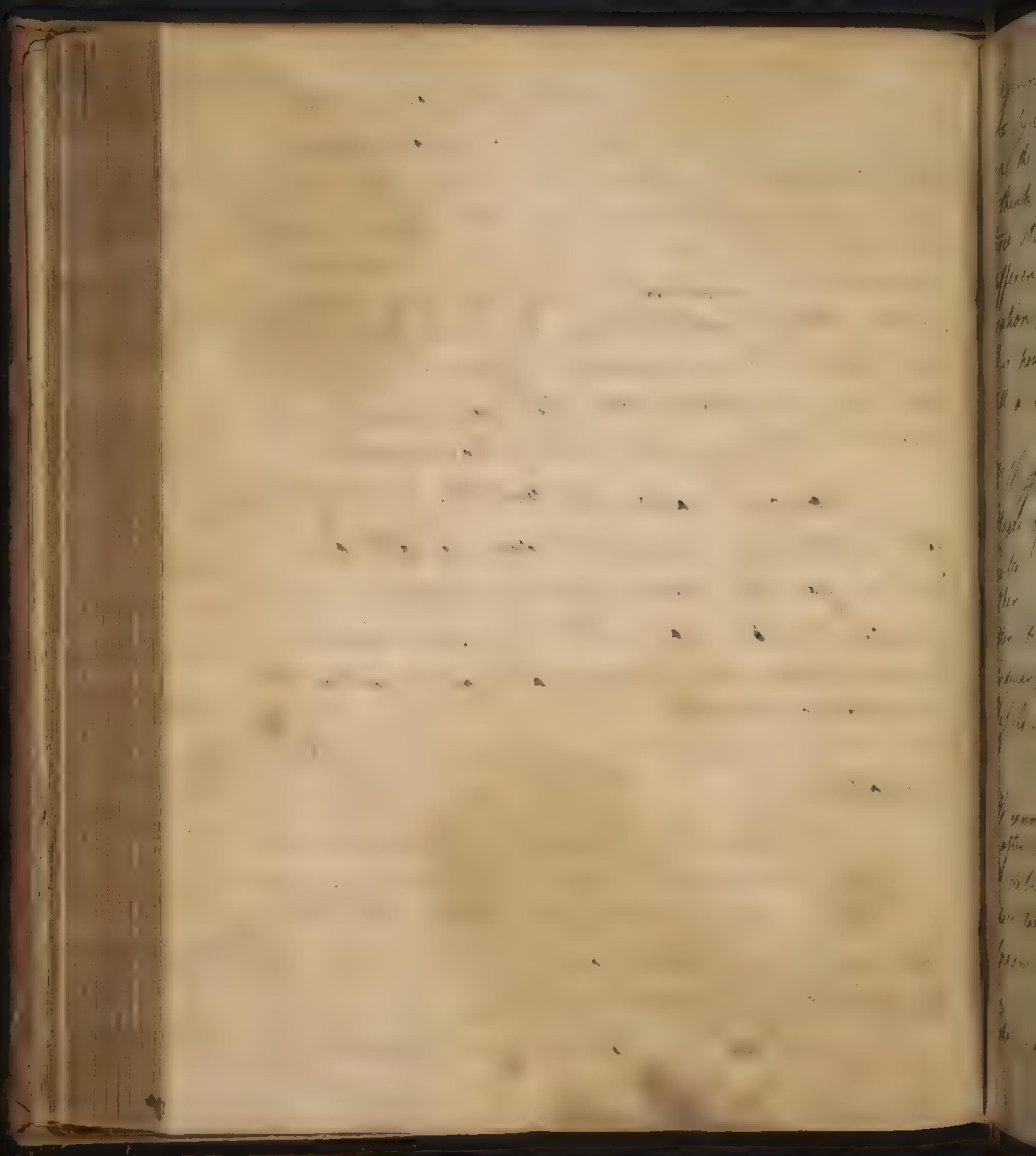
108.

at as a Stimulus - But abstracted from this circumstance, I say that Cold in a certain degree (not of that which induces death), may produce circumstances of debility that take place in the beginning of Fever - But it is not to be said to do this by operating immediately in producing Spasm, but as a sedative power - And also after this, by the continuance of its application - It may produce Spasm so as to give fever; but it is not probable that Cold can support a permanent Spasm, unless debility had preceded.

Moreover, allowing that the direct effect of Cold be to induce Spasm, it does not alter our Doctrine; for this Spasm must be supposed in part stimulant and in part sedative; and according as the one or the other predominates, or in fact as the symptoms of debility and increased action are in greater or less proportion, it will give us different Indications.

Therefore it still appears, that the Doctrine we before laid down is good, that the causes of fever in this certain susception produce the three states, debility, Spasm, and increased action of the heart and arteries.

I think we have disproved that the begin-



169.

beginning of fever is laid in a debility induced on the system - and that from hence is produced a spasm on the extreme vessels, which is the cause of the hot fit. I think it is established in fact, that in every fever there three states takes place in different Proportions, at different times, and with different Proportions of duration, viz, Debility Spasm, and increased action - It is however a fact supported by what our lawyers call a circumstantial proof -

What we advance is only an addition to Dr Hoffmann's system, viz, that a debility precedes the two stages of which he makes fever consist. It is to be observed to us that a pyrexia arises from Inflammation, when there is no Debility - and that cold appears often to be the only cause of fever; and that it is by inducing immediately a spasm on the extreme vessels -

With regard to the first of these Objections, It cannot be fully disputed here; but we shall hereafter show, that in Inflammation a state analogous to debility, and attended with a similar operation, does take place, and is equally efficacious in producing spasm -

With regard to the other Objection, I say that cold has not these effects (of exciting proper fever) except

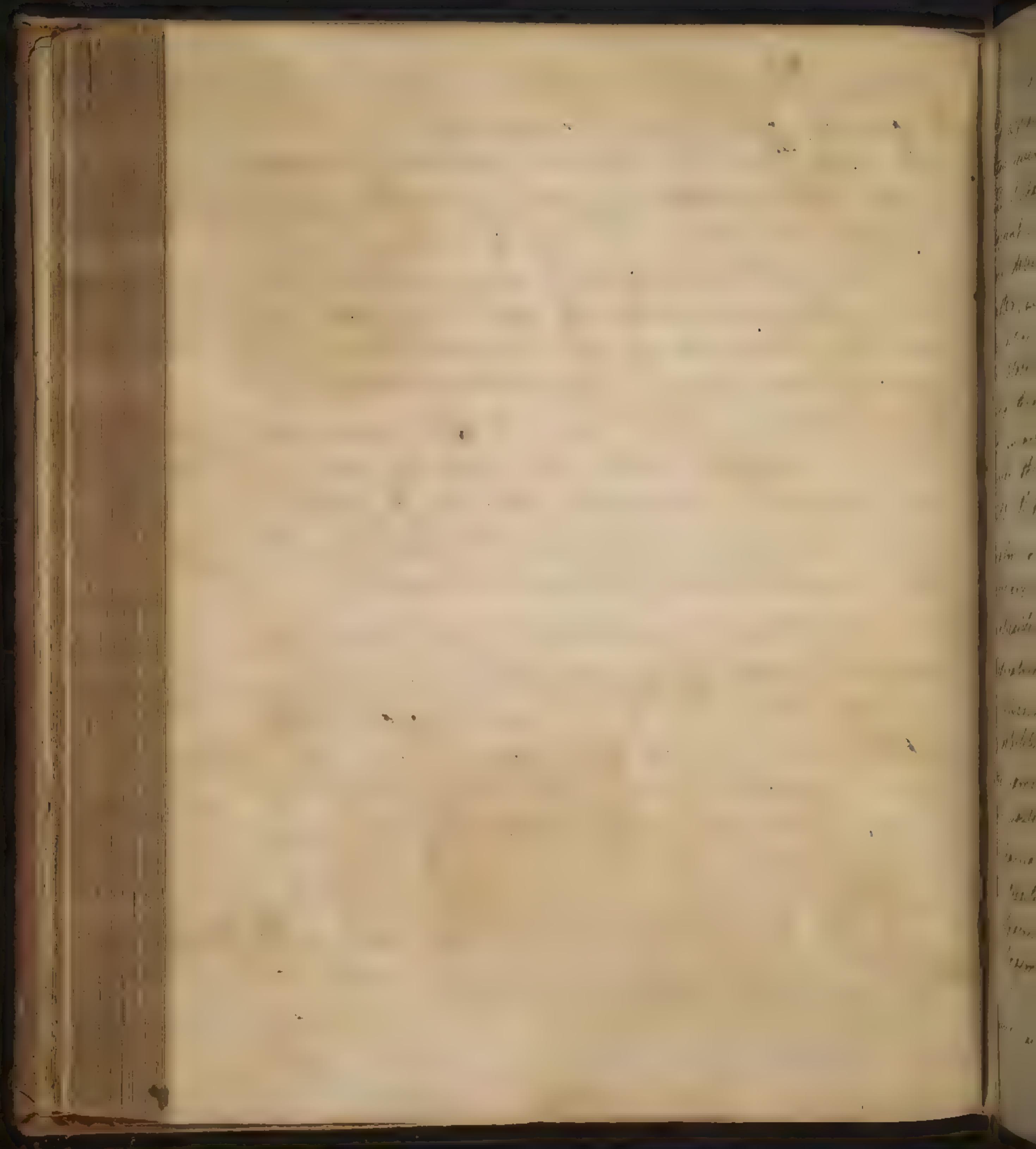


110.

except in bodies previously debilitated. Whoever understands the operation of Cold, as I have formerly delivered it, will understand this. It is not found to be the degree of cold applied, or the vicissitudes of it, that affect us, when fever is excited by it. But the most common observation is, that some weakening power, some error in the Non-naturals, or such like, has taken place before, with which the concurrence of cold has induced fever. Further, supposing no such trespass in the Non-naturals has taken place, and yet fever is excited, we may still have recourse to Miasma or contagious matter, of a Sedative Operation introduced or produced in the body, which had the greatest share in the production of fever, being favoured in its effects, or excited & action by the application of Cold.

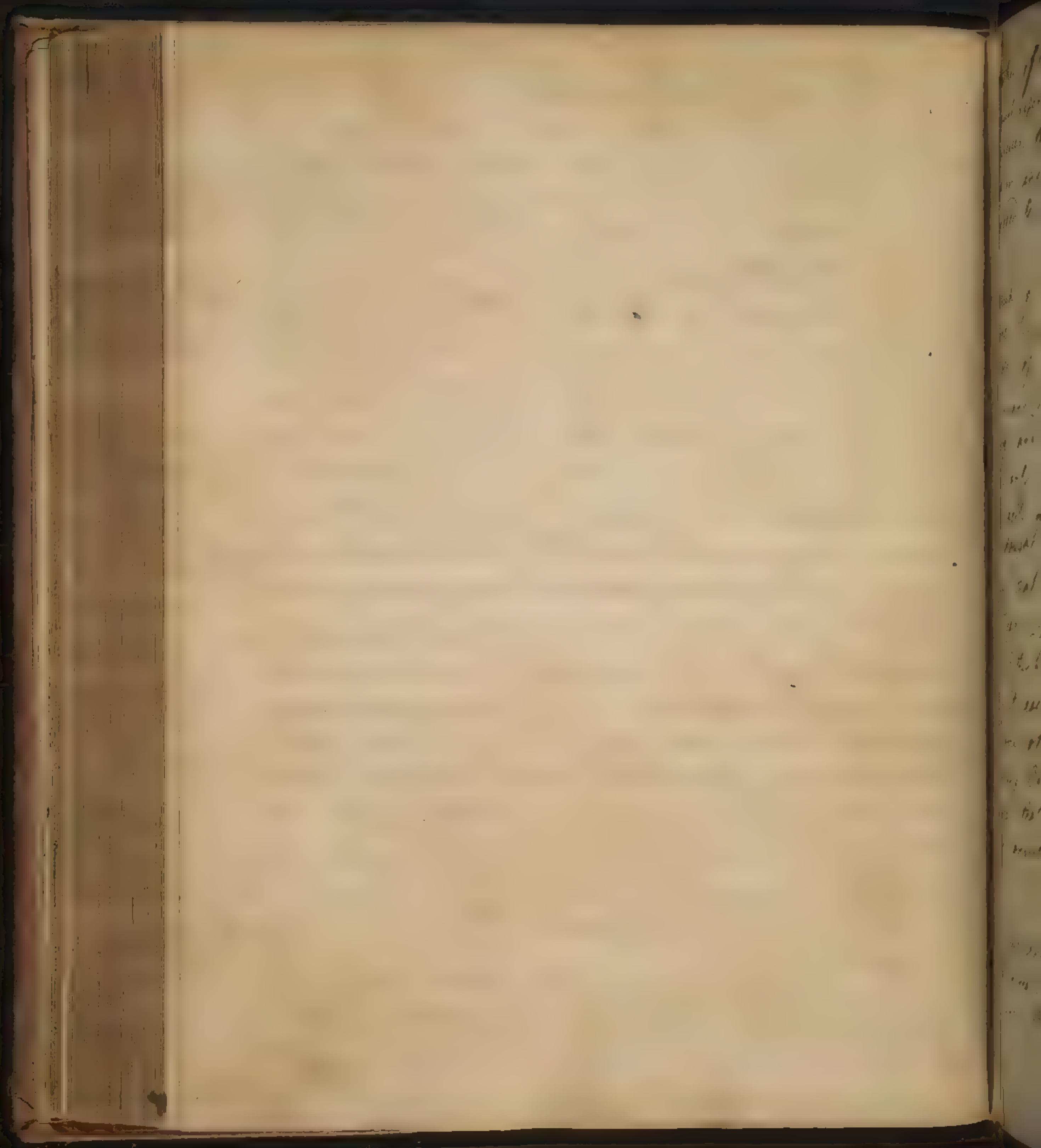
Moreover, in the last place, supposing none of these to exist, but that Cold operates alone, we have yet a return, and need not give up the Universality of Debility taking place, previous to the Spasmod, in every proper fever. For cold itself may operate in that way. It may in certain Circumstances have the effect of inducing a previous debility, and in Consequence of that of inspiring so that a proper fever, agreeable to what we advance, may arise from it. Therefore we think that none of these Objections have any weight, but that fever in fact con-  
sists of the three parts above mentioned.

W



It might be desirable to advance a step further,  
and explain the foundation of the Connexion between  
these several States. But here I acknowledge myself,  
and I shall not think it safe to enter far into it at  
present. With regard to the Connexion between Spasm  
and debility, to show how the former follows the  
latter, we might say that the debility, by weakening  
the action of the heart and arteries, and thereby abstracting  
the blood from the extreme Senses, gives occasion to their  
being thrown into a Spasmodic Contraction. But after  
this, in order to say that the Spasmodic Constriction pro-  
duces the Reaction, we must have recourse to the  
Vires Naturae Medicatrices, by means of which, the  
Spasm proving a Stimulus to the System, produces the  
necessary reaction. This follows in Consequence of an un-  
-applicable Law of the System, on which the Vires Naturae  
Medicatrices depend. It is enough that we know this Law  
is universal, to refer to it. I might here say that a sense  
of debility is a condition of the same kind, and from  
the same Law necessarily brings on a Reaction. But  
this would seem more strange, and to account for it on  
Mechanical principles is difficult. It would appear that  
the Reaction is produced partly by Debility and partly  
by Spasm; but the debility produces it by the interposition  
of Spasm.

As to the other questions that might here  
occur, as how the increased action of the heart and arteries  
takes



takes of the debility and Spasm which were its cause. &c  
I must refer them to an after Consideration. We conclude  
however, that fever consists of these three states, debility,  
Spasm, and increased action; and upon such supposition  
proceed to consider the symptoms belonging to them.

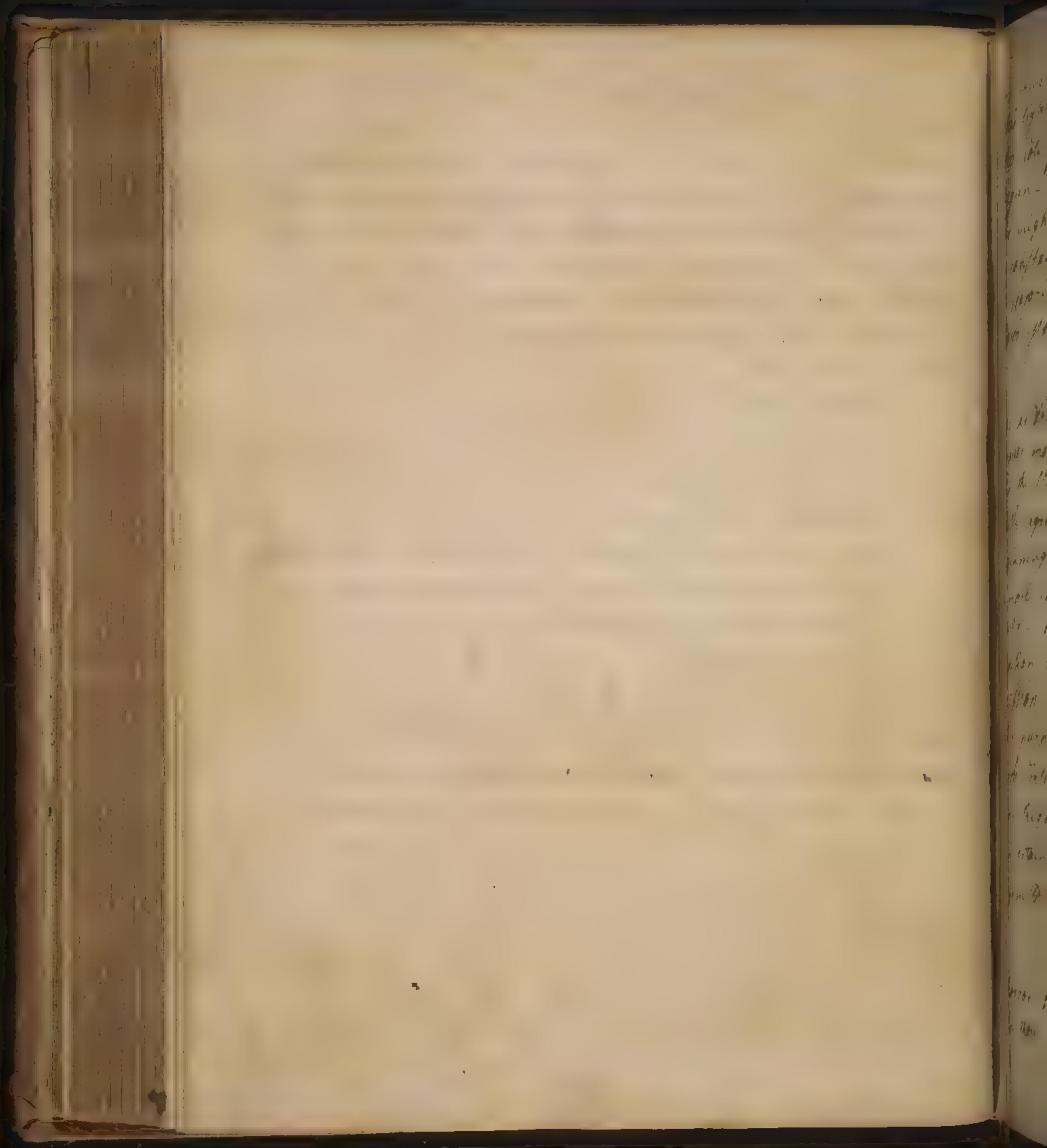
We begin with Horror, Tremor and Rigor, which is considerable a part of the cold fit of fever, that some Physicians have considered them as constituting the whole of the cold fit. These symptoms are upon other occasions the consequence of External cold applied to the body; and therefore they might be considered as the effect of cold only; and that cold in the beginning of fever is always necessarily preceded and accompanies them, so that they might be thought to import nothing but a sense of cold. But we know that other causes, besides cold, bring on this Tremor, as Fear, which indeed frequently brings on a sense of cold also. But I think it often brings on Tremor in a greater degree than it does cold; so that it must be supposed to operate in some other way to produce the Tremor, then by first inducing cold. But however this may be, it is more proper that we consider more particularly in what Tremor consists.

Physicians have supposed Tremor of two kinds, Convulsive and Paralytic. With what propriety they have considered it as Convulsive, I shall not at present enquire. But I am convinced that of twenty cases of Tremor

that



that occur, nineteen at least are paralytic, weakness or atonia: and in this light I consider it in the present example, viz, as the effect of debility - That it is so, the observation of every one will suggest proof enough - auditory Dr Gauviers has with great judgment considered it as a symptom of Palsy or atonia; whereas Savary has improperly placed it among the Convulsive disorders - I consider it in Gauviers view, as an effect of debility; for we may observe that it occurs when we attempt to move a member; but when well supported the Tremor does not appear - The meaning of this is, that the Tremor is an effect arising from a constant alternation of the debility and the effort of the will - and if any body will consider it more particularly, I think they will plainly perceive it to follow from thence - It is to be observed here, that there are many instances of motion produced by the effect of the Energy of the Brain, without any consciousness of the Conscience of the will to produce such motions - Thus the Chattering of the teeth, or Tremor of the lower jaw, lies between the Tendency of it to fall down, from its weight, and the constant effort from the Energy of the brain to raise - The weight of the lower jaw is counterbalanced by the Levatores muscles - If these are enervated by disease, or in sleep, the lower jaw falls down - Then, took in the case of debility, there is this tendency of the lower jaw to fall down, and this along with the constant effort of nature to raise it, gives the Tremor - This then, infers a constant effort of the system, while the Tremor remains, or

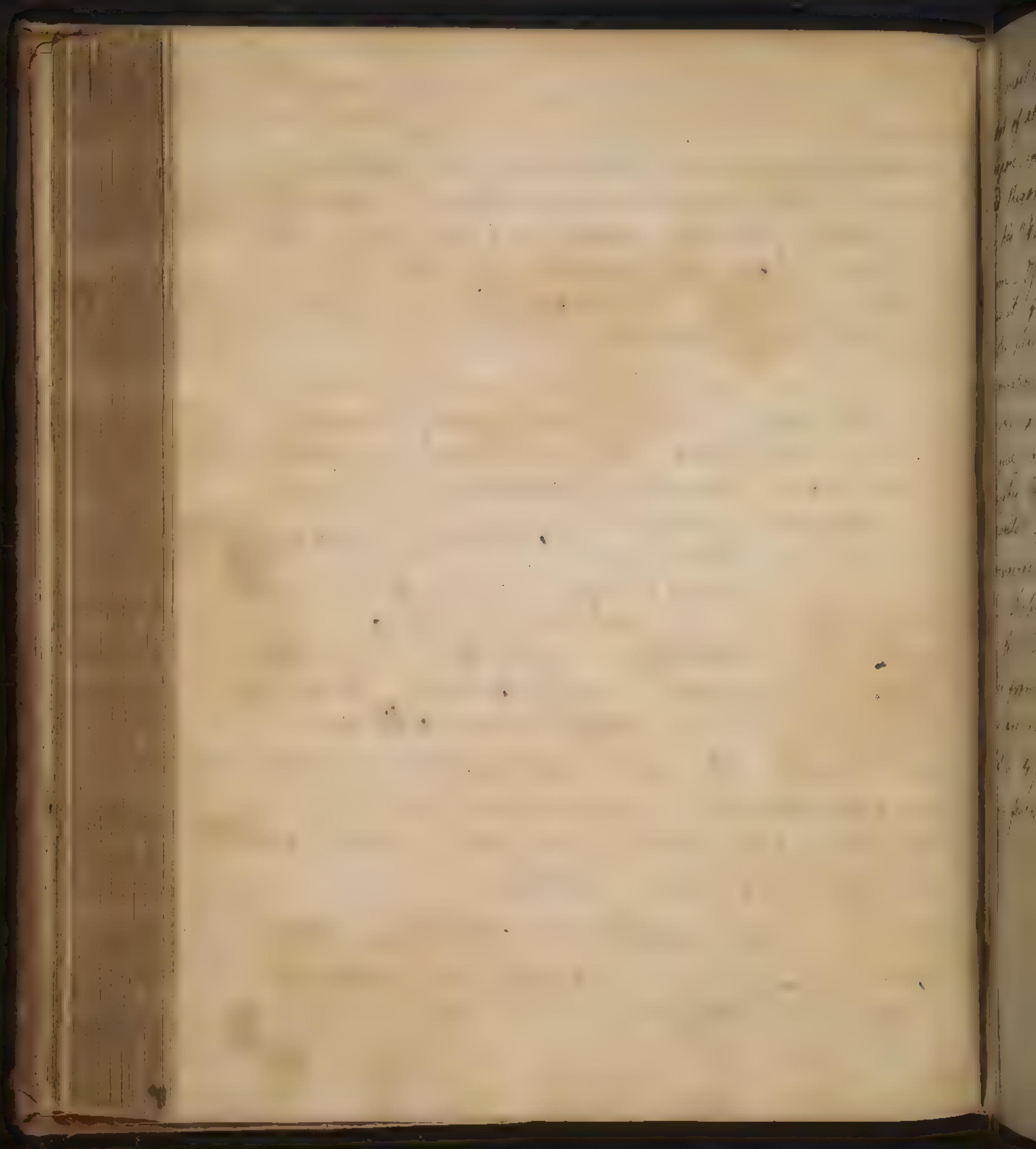


111.

or some reaction in the state of Debility. Therefore in this light I would look upon the Tremor that occurs in the cold fit of fevers, viz, as a mark of the reaction already begun. That is, Tremor is not a purely a mark of debility as might at first have appeared; but this is mixed with a constant endeavour to support the tone of the muscles. This is reasoning in Theory, but I shall here, as in all other cases, establish my Conclusions in Fact.

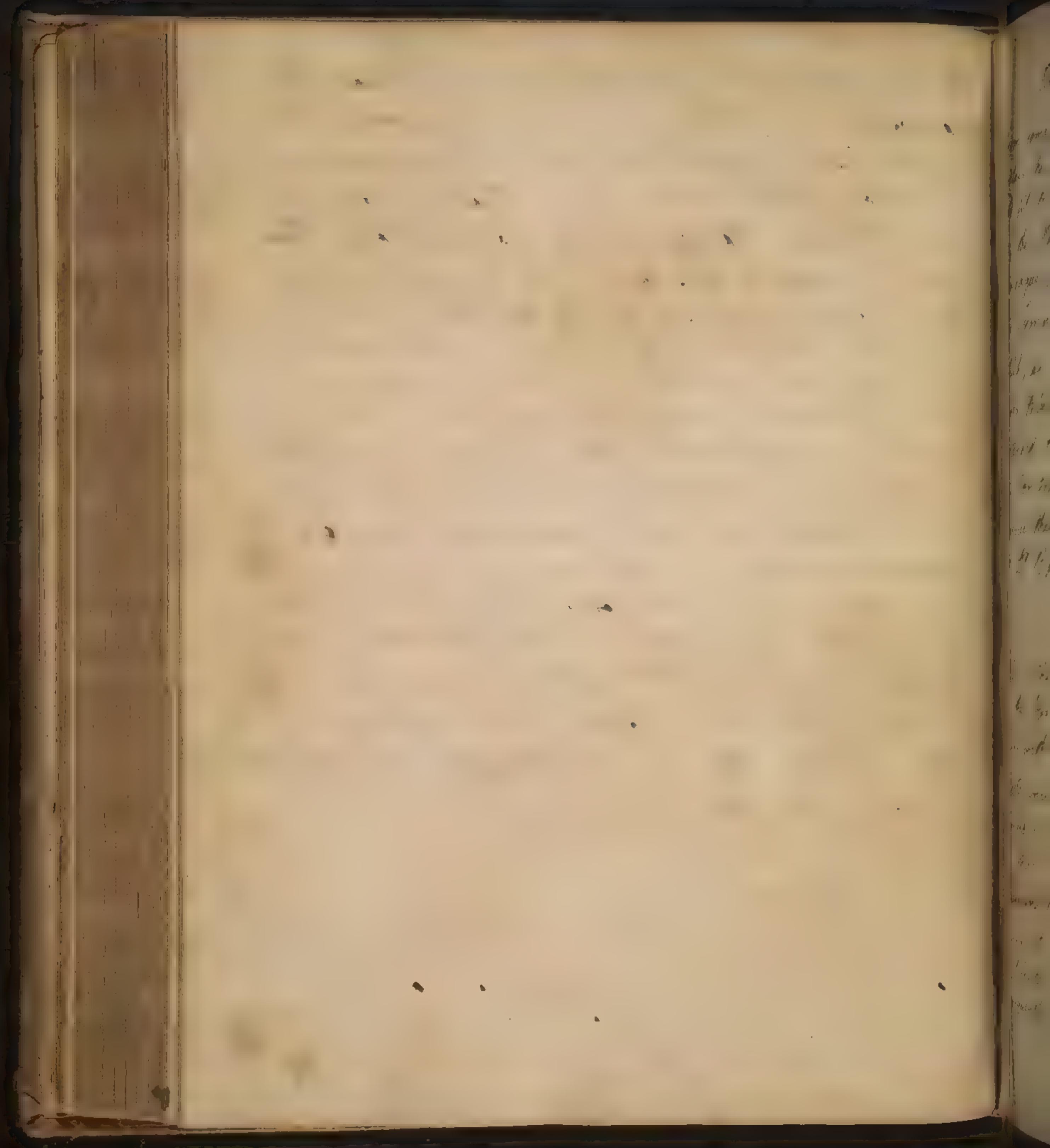
I say that Tremor is a mark of the reaction; for as the Tremor arises to a greater degree, the reaction proves more considerable, - the Spasm is more quickly overcome, and the Paroxysm sooner admits of a solution. This is exactly agreeable to observation; for we always find in the beginning of a Paroxysm of an Intermittent, the Tremor is more considerable than in the beginning of a continued fever - and always in proportion to the Tremor is the reaction more violent, and consequently the Febrile affection of less duration. No body has marked more faithfully this purpose than M. Senac (See pag 20 *de la Théor. Intermitt. & Remit. n&eacute;.)* He says, that when the Tremor and Rigor occur in the beginning very violent, the fever is certainly to turn out an Intermittent, and the Paroxysm to admit of a quick solution -

also take this further observation, that the horror tremor and rigor are always most considerable in those Intermittents that have the shortest Paroxysms, viz,



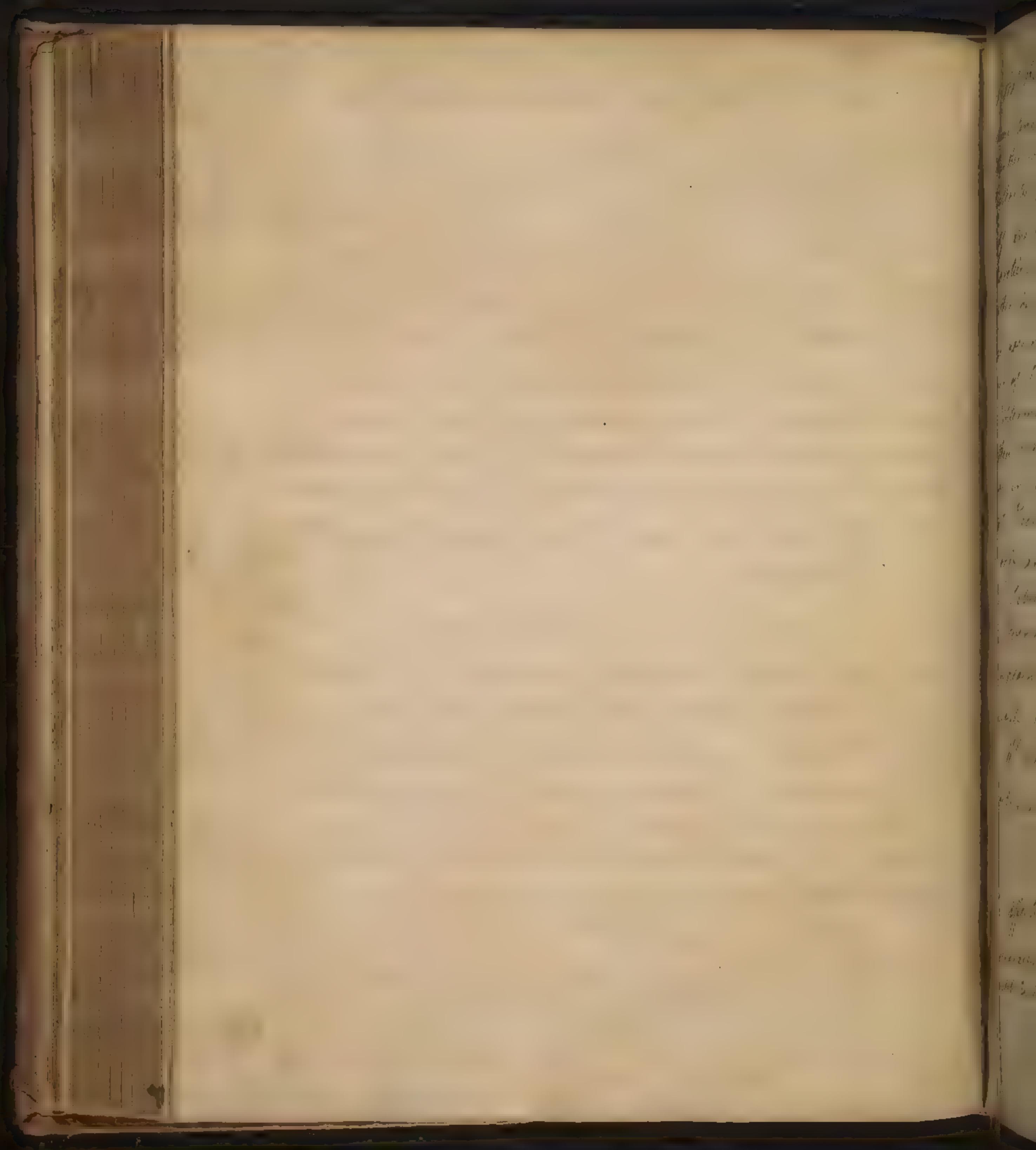
viz, most considerable in Quartans, less so in tertians, and  
least of all in Quatuors ( see Senac's Observations <sup>115.</sup> & this  
purpose, meeting off & cold with the Circumstances of Tremor,  
and Rigor that attend it - Pag. 23. ) What he means here  
by his "Salvador Paroxysmus" is plainly a longer Parox-  
-yssm - If what he here says be true in fact, as I could  
know it from number less other Authorities, it makes the  
matter plain - Besides its Continued Fevers, when they are long  
in duration, there is no appearance of Tremor and  
horror at the Exacerbations of critical aseptions, that  
do give a Solution of the disease, are commonly distin-  
guished by some extraordinary horror and Tremor - So that  
it would appear that the horror and tremor are not to be  
considered as purely Symptoms of the first Operating cause,  
the Debility, but as the Consequence of the reaction  
of the System that follows to resolve the Paroxysm:  
And from the very condition of them ( the horror and Tremor )  
we are enabled to judge of the condition of the disease  
that is to follow - This is of great Importance in distinguis-  
-hing fevers - Thus, then, we conclude

Bul



But still there are difficulties that seem to arise from some words of Dr. Boerhaave (vid. aph. 71, 9.) I am certain he has here chiefly in view the circumstances of the cold fit, to which his *Symptomata pectora* are to be applied, viz., the Nausea, Debility, &c. - And the "Hoc prout majora, pluraque, simul ex febris rector" ought to be confined to the symptoms of debility - The languor and insensibility which, as they are in greater degree, certainly show a worse fever to be coming on - But the same is by no means to be extended to the Horror, Tremor, and Rigor; nay with them the contrary is manifestly the case - It was necessary to observe this, least you might be led away by any theory of Dr. Boerhaave -

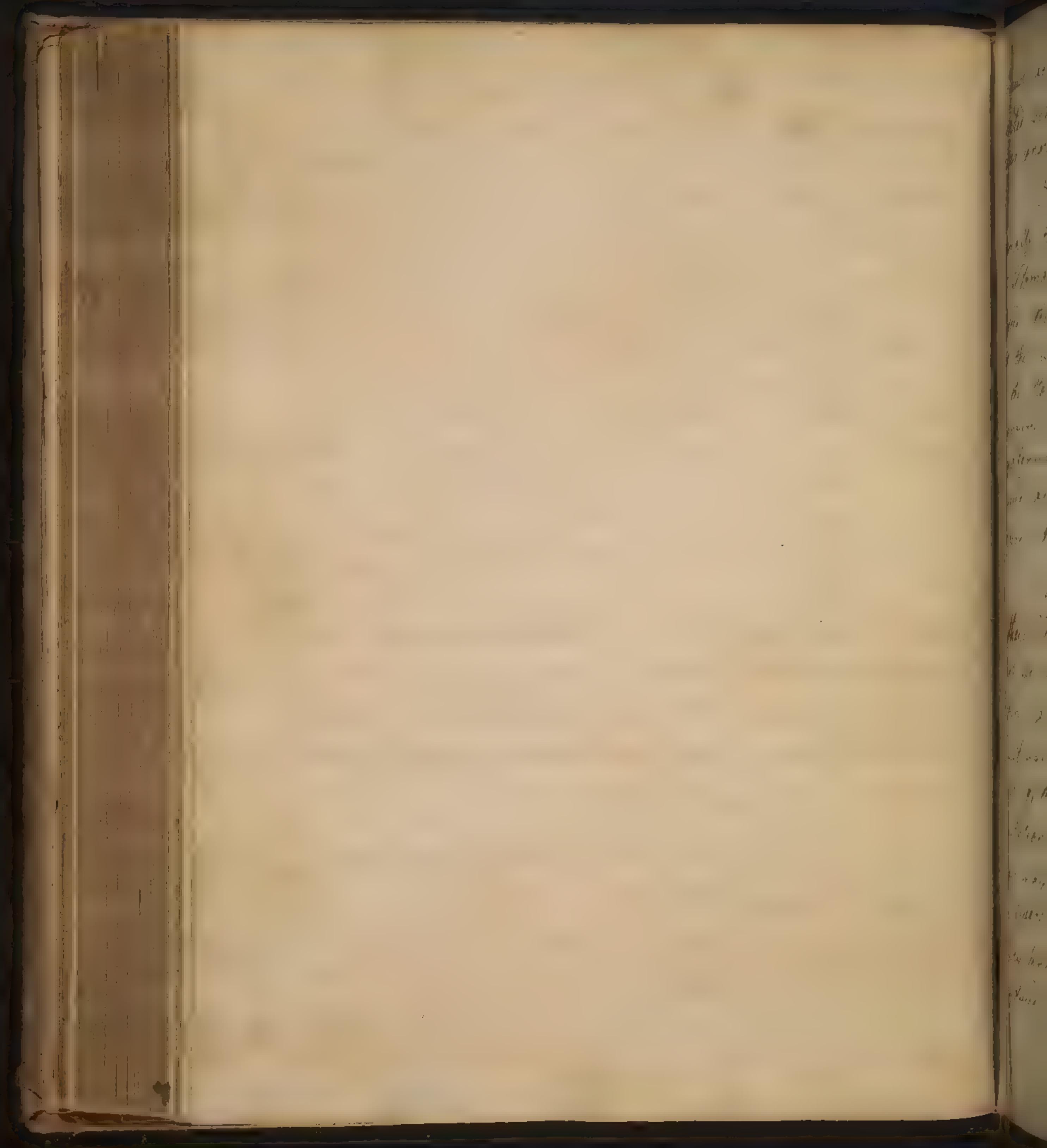
And now see what he says elsewhere (Aph. 623.) This must be understood as respecting the cold suffered by the bystanders, but which is at the same time accompanied with horror or Tremor - In the end his words are, "In "Peste incuniente frigus summum Prodigia Calor max " = imus!" - authors on the Plague are not very accurate in their observations, so as to mark whether horror or Tremor occurs in the beginning of that disease when fatal - But I find it observed in one author (Potes. Salius De febre pestilente), that fevers of a very Malignant nature were frequently introduced with circumstances of very great cold,



117.

that the Limbs seem as it were frozen - But at the  
same time ~~make~~ his Expression " dum levis horror adest "  
Further, with regard to the Plague, I do not find D' Boerhaave's  
Authority, for what he here says - He never saw the Plague him  
self, and therefore must have taken this Observation from au  
thorities; and as for Van Swieten, his Commentator, the only  
author he refers us to is our Dr Sydenham - But what he  
says does not support Dr Boerhaave - He indeed mentions some  
Cases of Plague as beginning with horror and Tremor, like  
an Intermittent, but does not speak of the Termination  
of these Cases, & say whether the Event was better or worse  
than in other Cases - And thought it should be allowed,  
that Tremor has sometimes brought on dangerous fevers,  
it only amounteth to this, that after the Reaction began  
the Debilitating cause still remained and determined  
the Event of the disease - And in this way we are  
to explain the malignant Tickings of warm Climates.  
I would refer you to later Writers, on the Plague,  
as M<sup>r</sup> Chenu, whose Observations confirm the  
Doctrines we are delivering.

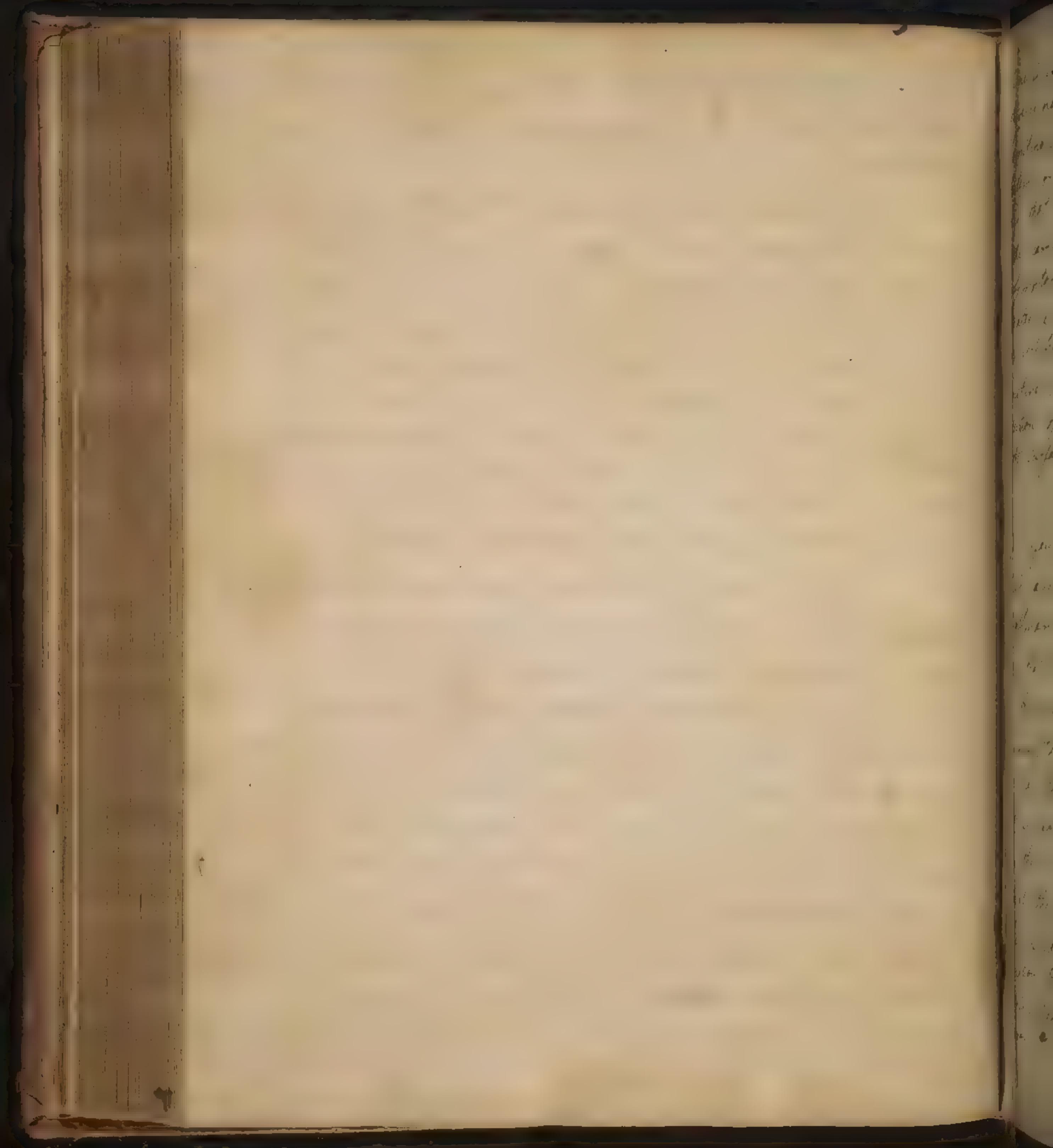
I go on to consider another set of Symptoms, viz,  
the affections of the Stomach - There are in some degree  
so generally connected with fevers, that there can be little  
doubt but that they depend on the same fundamental  
Cause



cause as the other Symptoms, and are intimately connected with the general affection of the System in which fever exists. - 118.

To explain these symptoms Pathologists have generally had recourse to some particular matter lodged in the Stomach and Duodenum, and giving an Irritation - Indeed they have proceeded so far in this Opinion, as to say that the whole of fever depended on such matter present in the Stomach and Duodenum - Even Hoffman has endeavoured to show that the cause of fever acts chiefly in the Duodenum - It is hence that we find the Stomach so much named as the cause of fever, both in the ancient and Modern Writers - This matter deserves our attention -

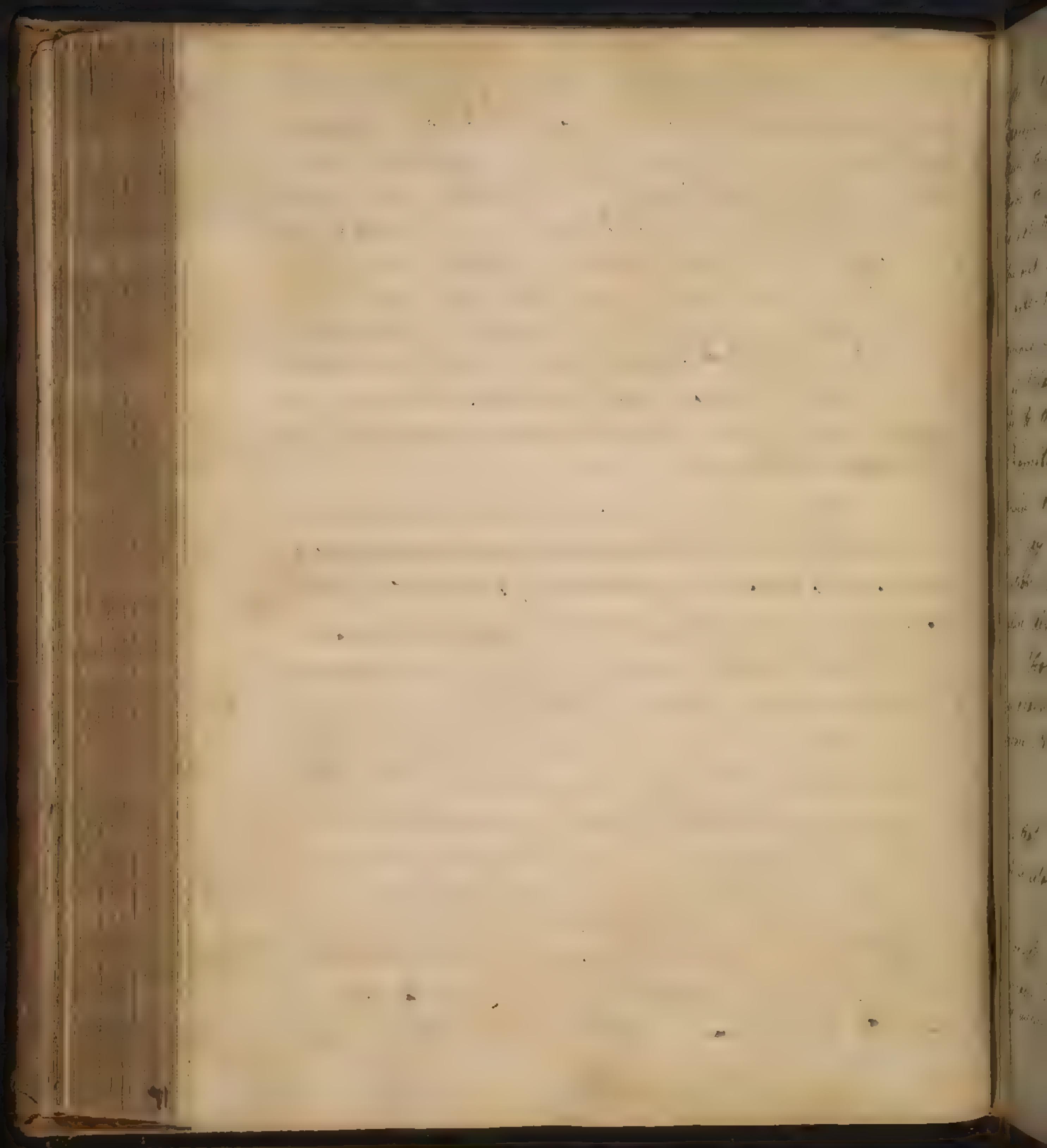
and in the first place - I say that the whole of their Theories will be rendered doubtful from hence: That we know very often symptoms of the Stomach arise from a Sympathetic Affection - <sup>Observe</sup> attend how often Vomiting is produced from affections of distant and remote parts of the system, without any local, or particular Irritation, being present in the Stomach itself - how may not the Nausea and Vomiting that occur in fevers, be accounted for in this way? Every Body knows that when a Deliquium Anerhi is induced, as from bleeding, the person is at the same time



119.

time is immediately affected with Vomiting - Now here there is no particular affection of the Stomach to produce Vomiting - But it arises from the general affection of the system, or debility that is induced - Hence, then, it might be said that the Vomiting which occurs in fevers was owing to the same cause - And indeed an obstinate Vomiting is a symptom of fever, which alone with other marks demonstrates a great degree of Debility - But the matter must not rest here; - for in the cold fit of fever it is evident that the Vomiting does not depend on the general debility alone, or an affection of the system in general, but on a particular state of the surface of the body.

Of the mutual connection between the stomach and surface of the body, there are many satisfactory proofs, which are laid down by authors, particularly by Dr Hoffman, in his *Sympatheta Corporis Humani* - I say that here the Vomiting is owing to a Constriction on the surface; in proof of which observe some particular circumstances that occur in fever - The fact is this, that whereas the vomiting comes on in the cold fit, it goes off as soon as the hot fit comes on; or at least as soon as the sweat begins to flow - Therefore I conclude that the Vomiting depended on the Constriction of the surface - For we find that it ceases, as the determination to the surface of the body is fully established - This is beautifully illustrated by a particular fact from Dr Sydenham - He tells us that in the beginning of



120.

of the Plague he was often ~~affaiporated~~ appointed in the use of Sudorific Medicines (which he administered for the cure) because they were always evacuated by Vomiting, which often attends the beginning of that disease. But he says this was not the case after such time as a sweat had naturally broke out in some degree. Therefore he found it necessary in order to obviate the Vomiting so that his Diaphoretic Medicines might be retained on the Stomach, & make use of Blankets &c in order to restore the motion of the Blood to the surface, and in some measure relieve the Vomiting before he gave his Diaphoretic medicines, otherwise they would be ejected. (see his Prof. Instigri) Therefore I say that the Vomiting here depends on the Constitution of the Surface, though it may also in some measure depend on the general debility of the System.

How Vomiting is produced from hence, it is not easy to explain. Observe however that these causes first produce Nausea.

In prosecuting the Theory of fever I avoid every thing that can be called Subtile - but proceed entirely on what is established in fact. —

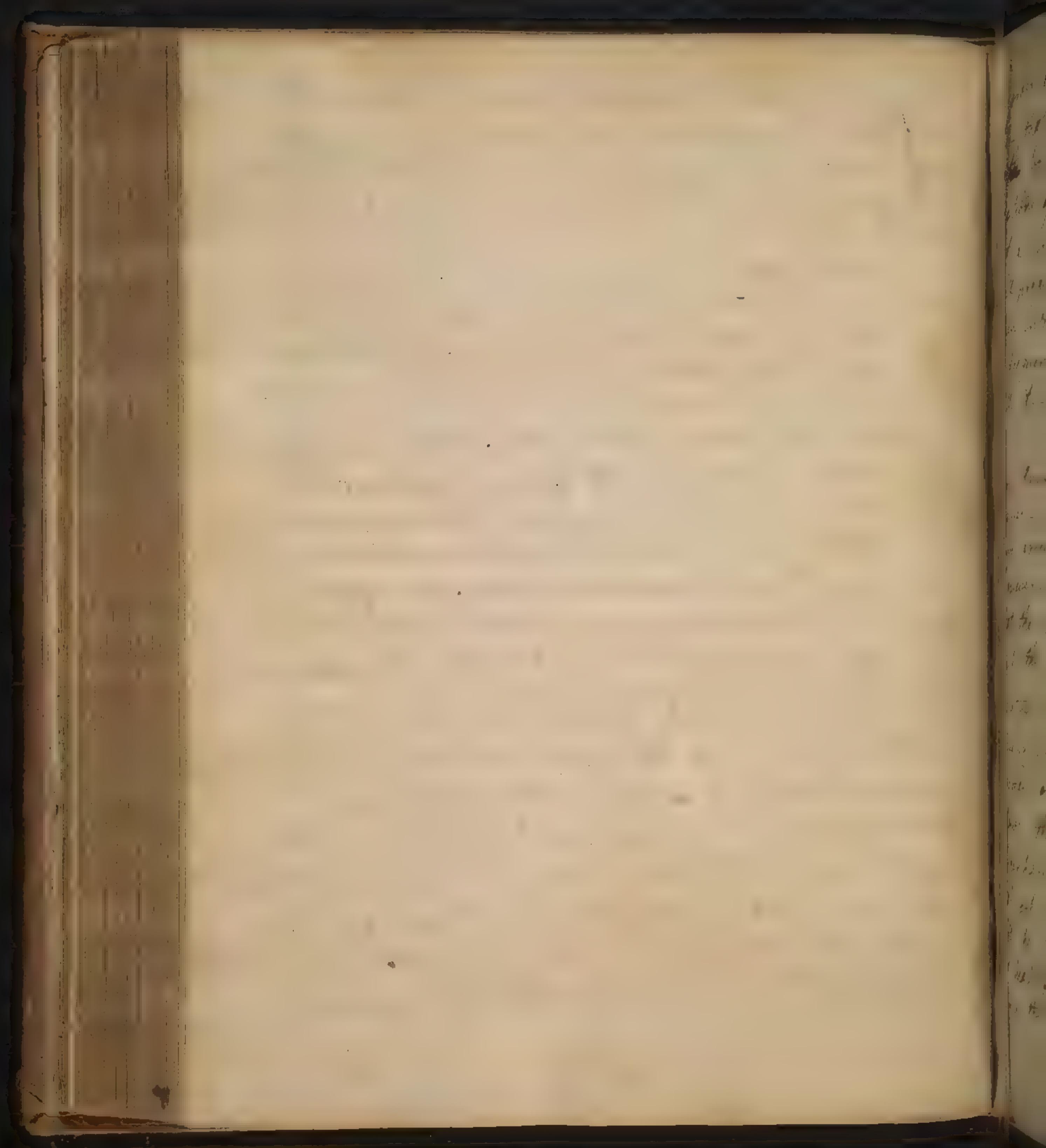
I think it manifest from the Phenomena of fever, that it consists of three states, viz, of debility, Spasm, and increased action of the heart and arteries, which, as they thus succeed one another in a regular Order in point of time, we



we suppose to proceed in the same order in a series of <sup>121</sup> Causes and Effects. - I was considering the Symptoms more particularly, with a view partly to give an Explanation of them, and partly to illustrate what we are maintaining with regard to the general subject.

First, as to the horror, and especially the Tremor. This I look upon as arising from the effects of the debility and con-stant effort, or reaction, of the System, alternating with each other - and to this purpose to observe, that the more remark-able the Tremor is, the stronger and more vigorous is the Reaction that follows - and on the other hand, the less the Tremor is, the more the fever is disposed ad Tum- turnitatem (as W<sup>1</sup> Janse makes) - We shall meet with many things hereafter, to illustrate and prove the same -

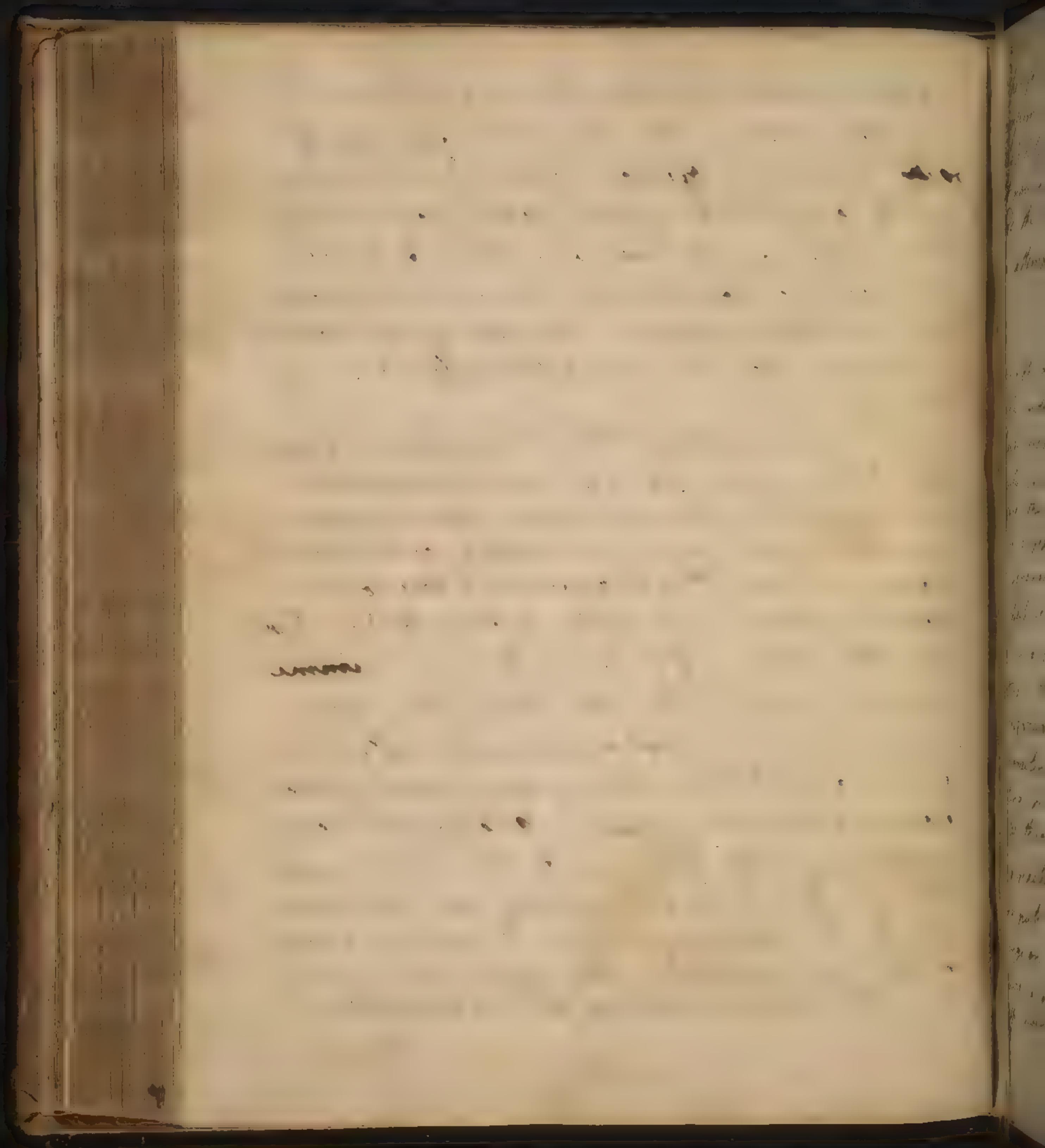
We were proceeding to speak of the affections of the Stomach, which we presume to be connected with the general Condition of the System that takes place in fever. I say these Phenomena, relating to the Stomach, are by no means to be looked upon as owing to any particular affection of that Organ - authors indeed have always been ready to suppose in these Cases (wherin' vomiting occurs) some acrimony or irritating matter applied immediately to the Stomach - This indeed they have recourse to in all cases, where such affections of the Stomach occur - By the Supposition of Irrit-ating matter being always necessarily present in



in order to produce Vomiting, &c, is overthrown by 122.  
this - that we know that Stomach is often affected  
both by general affections of the System, and af-  
fections of particular distant parts -; for we know  
that a stroke on the Head, or a Sprain of the feet,  
will produce a Vomiting, as well as Tartar Emetic  
taken into the Stomach - In this way the Stomach  
is frequently affected ~~sympathetically~~, as we may  
call it.

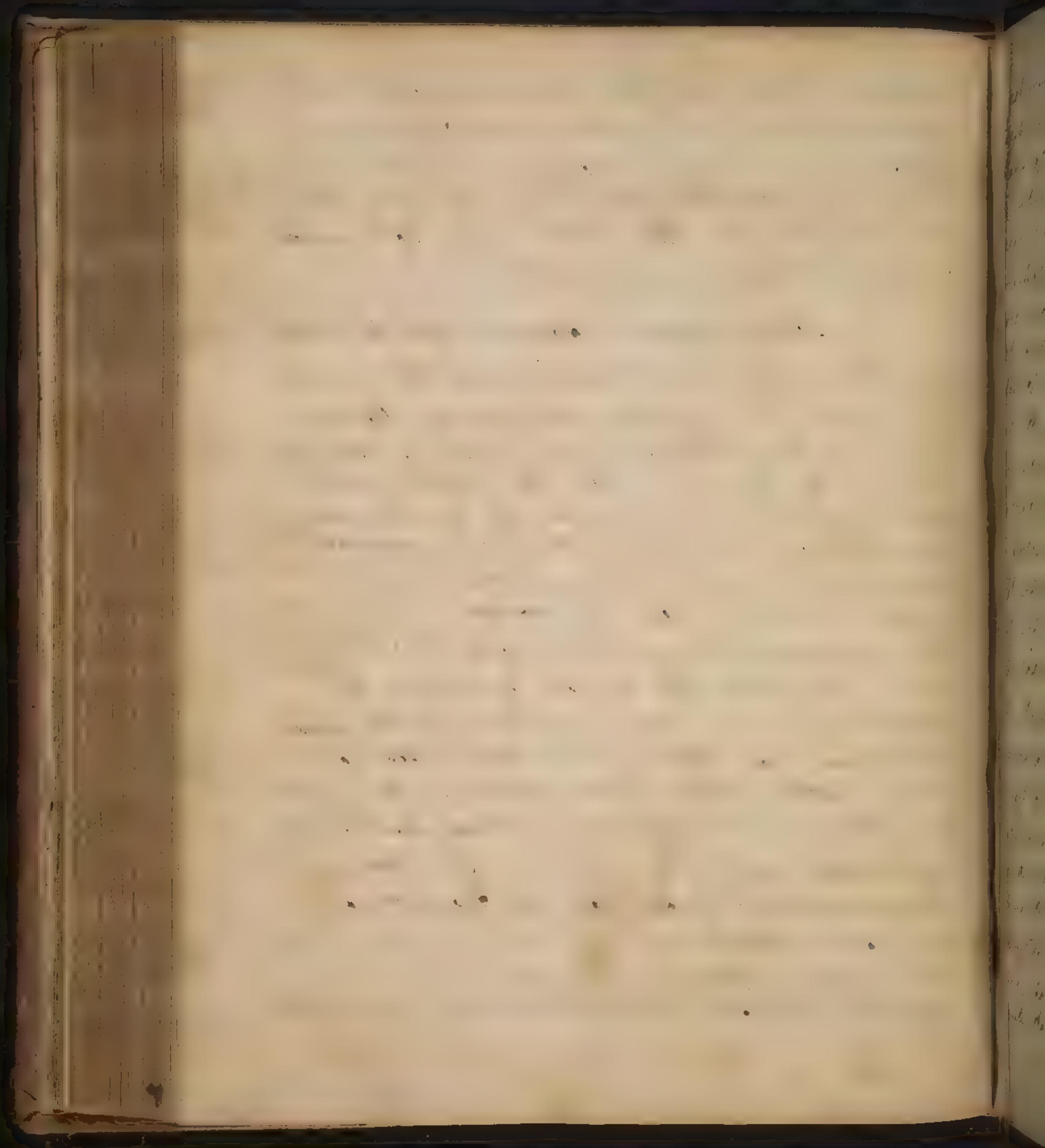
We see too that Vomiting attends Deliqui-  
um Animi from bleeding, or other debilitating  
causes - and therefore it appears that vomiting  
may arise from a general debility of the System.  
However in the Cold fit of fevers it does not seem  
that the debility immediately produces the Vomiting,  
but the violence of it seems to be more ~~intensified~~  
- directly connected with the state of the surface -  
thus, in fevers we see that as soon as the hot fit is  
formed, or at least as soon as any degree of sweat  
flows, the Vomiting ceases - And for this reason  
Sydenham, in the beginning of the Plague, could  
not get the stomach to retain his Medicines  
till he had ~~and~~ some means to procure a degree  
of heat, or a sweat on the surface, as by covering  
the face and hands of the Patient, &c -

Therefore

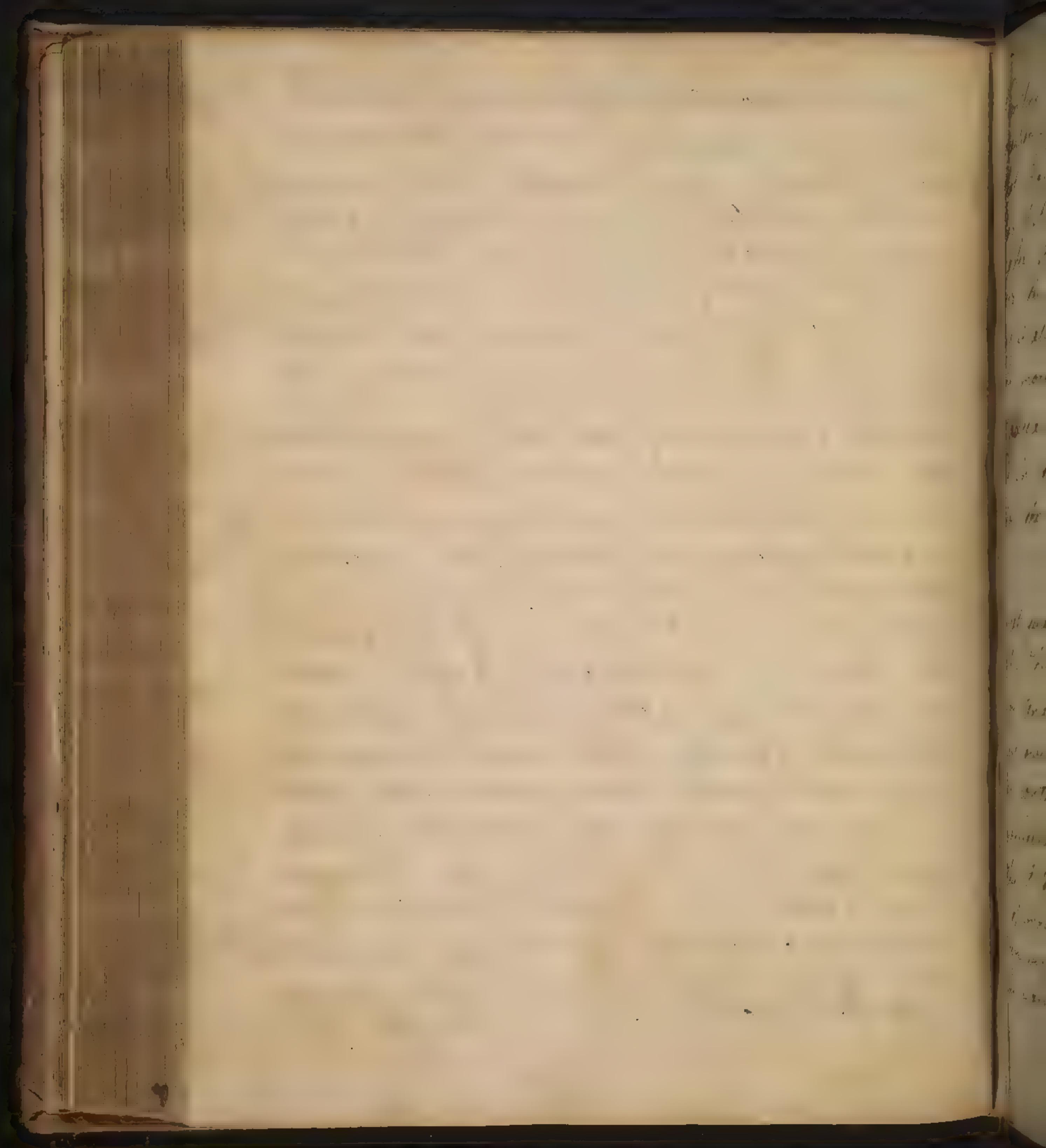


Therefore I think that these things in reality tend to confirm, on the other hand, the existence of a general Debility in the beginning of fevers. But I consider it now as a fact that the vomiting depends on this, and the Spasm on the Surface - and shall make an attempt towards an Explanation -

To this purpose I observe, that the debility does not directly produce Vomiting, but there is previously induced an anxiety, sickness, and Nausea, which seem to depend on, and indicate a state of debility in the Stomach. Now this subsists sometime before the vomiting supervenes, and the Vomiting seems to be a reaction occasioned by this Debility, agreeable to the general Laws of the System, whereby an exertion or effort is made to remove the Sickness. The Vomiting then is a reaction and an instance of the His Medicatrix Naturae. Thus, those who are fond of marking the autopathia on every occasion, particularly take notice of Vomiting as an effort, even in cases where no Vomiting (fratter is allowed to be present, and to require to be thrown out by Vomiting. I say that Vomiting is a reaction; for by Observation we find that a vomiting puts an end to the cold fit of a fever, and brings on a hot fit - at the same time too it produces a glow of heat over the whole body. I cannot help giving a farther illustration here, by a fact, which is



is not much attended to by Physicians, viz, that Emetics,  
though so commonly supposed directly Stimulant, are  
many of them in reality Sedative Medicines, or such  
as induce debility. This might be confirmed from  
many Considerations, viz, that some of the most re-  
markable Emetics are nothing but Narcotic poi-  
sons, which in their direct Operation produce a debi-  
lity of the Stomach, from whence a reaction, or the  
effort of Vomiting, is expected to relieve it - To this we may  
add, the Consideration of the other Causes of Vomiting.  
And now I say, all this tends to support our general  
Doctrine, and the Theory we are giving of Vomiting  
in fevers - Having said thus much, then, we observe,  
that while it is probable that the Sickness and an-  
xiety which precede Vomiting, are the effect of debility  
and Spasm - The affection of the Stomach in the mean-  
time being a part of the fundamental disease - The  
Nausea and Vomiting which succeed are perhaps truly  
a part of the effort of Nature, or the reaction, that has  
a tendency to restore the Energy of the Brain, and take  
off the Spasm from the Extreme Vessels. This appears  
to me to be the Case - And upon the whole, this cir-  
cumstance of Vomiting tends to confirm our system.  
Here, however, I shall endeavour to obviate an ambi-  
guity that may occur - I have just now said that  
Som

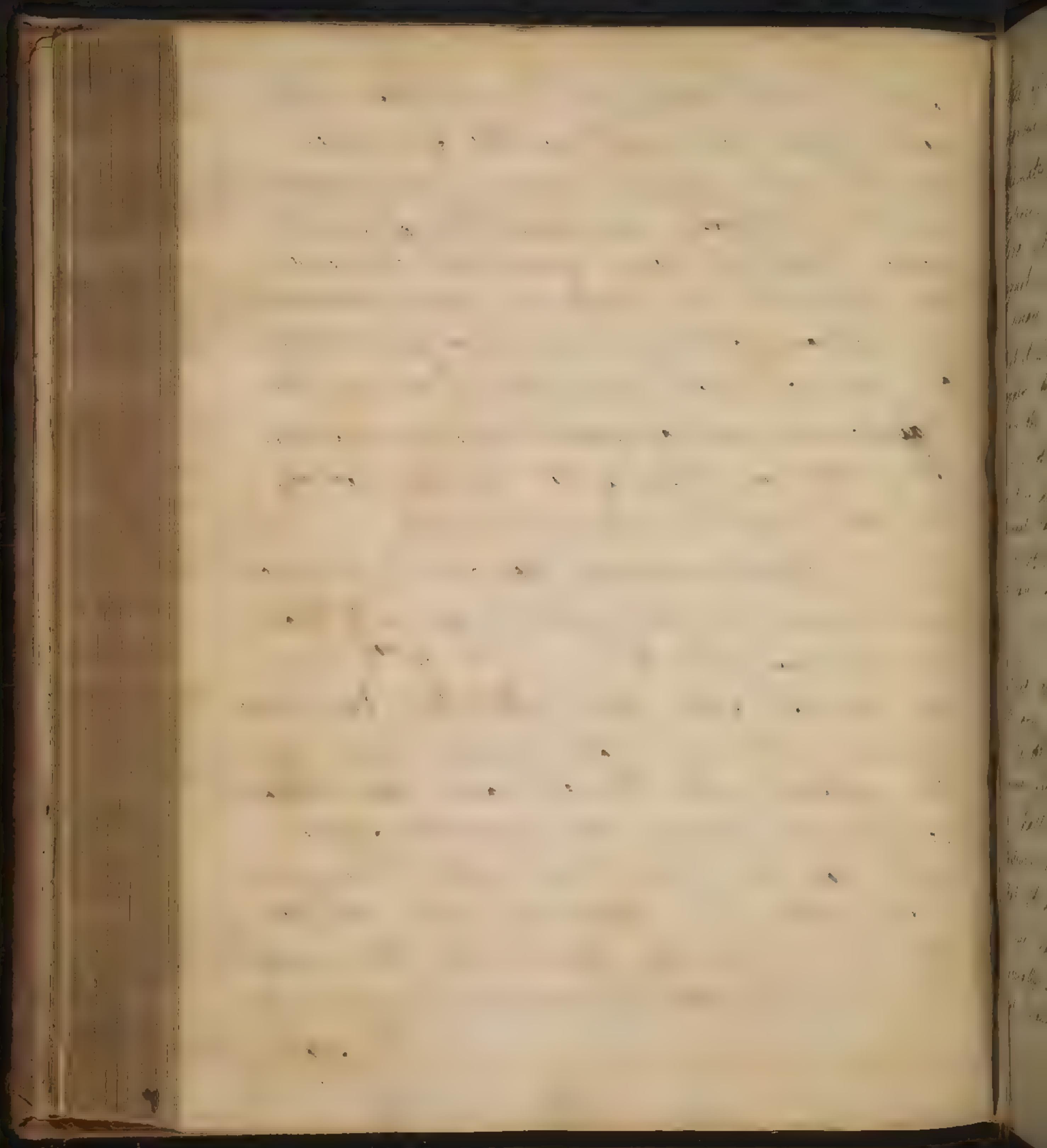


Vomiting is to be looked upon as a symptom of the malady - But can we not conclude from hence that Vomiting in fevers is always a good symptom - For if it is obstinate, and proceeds to a considerable degree, it shews the power of the cause to be great - viz, the debility - and therefore in fevers great vomiting is always looked upon as a sign of great debility, and more universally lesser degrees of the same thing.

Nausea and want of appetite are to be considered in the same light, as bad symptoms; for they show the disease to be more considerable -

By the vomitings that occur in fevers, a great quantity of bilious matter is generally thrown out - This has made the generality of Physicians very tenacious of the opinion that these vomitings were owing to the irritation of this bile out matter contained in the Stomach, and that bile has a considerable share in the production of fever - This I touched on somewhat before - The subject is of importance, and deserves our notice - It has been very universally observed that Warm seasons and warm climates produce some change in the

state



126.

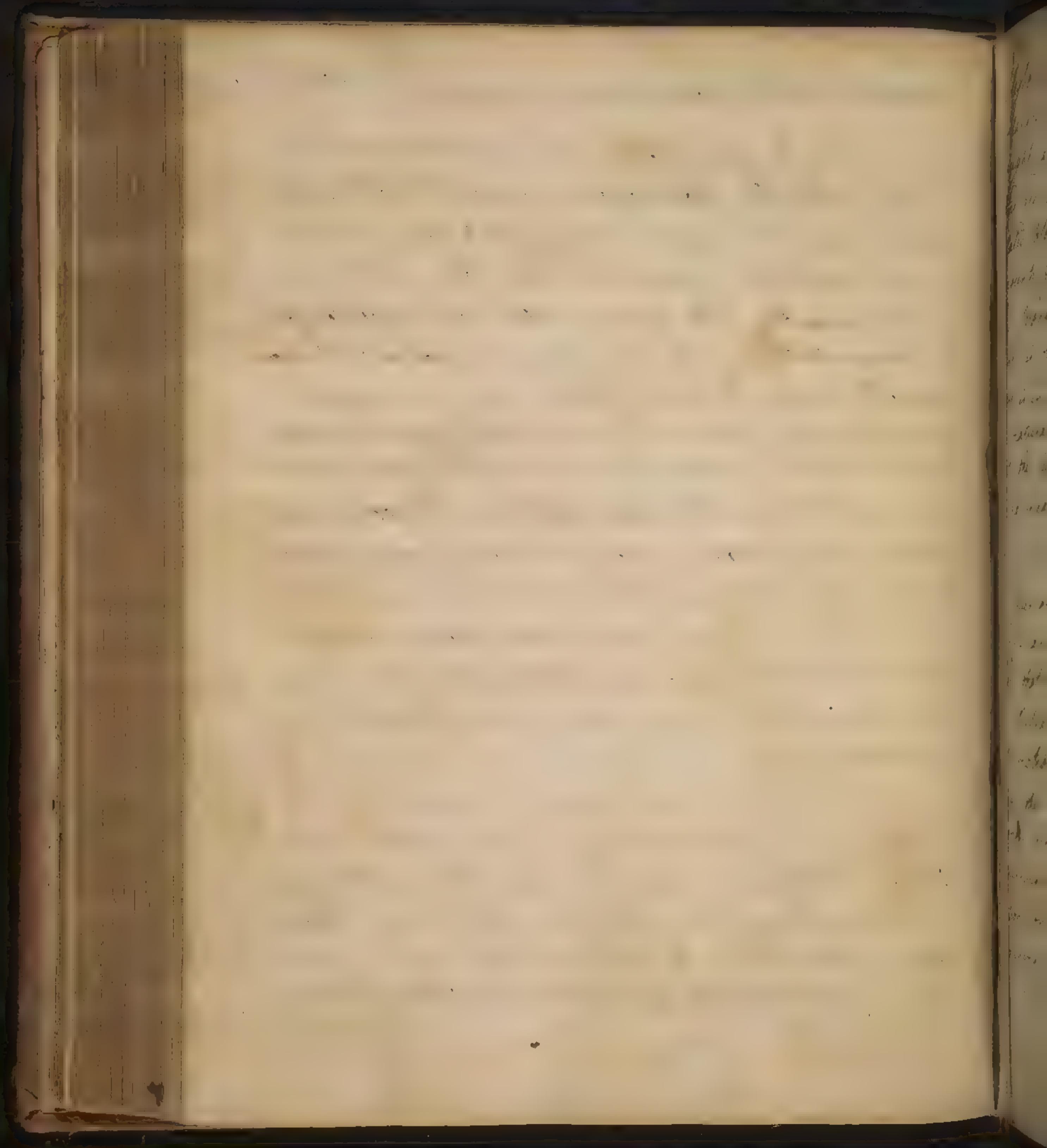
state of the bile, and in particular that the Cholera morbus is the peculiar product of such seasons and climates, that is, a copious afflux of bile to the intestines. Sydenham indeed asserts that the proper Cholera Morbus is almost confined to the Month of August. In Minorca Elghorn observes that it is a disease of Summer and the beginning of Autumn. But it will appear sooner according as the seasons happen to be warmer, though in general it extends from the middle of July to the middle of September. Such is the fact, but the Theory is uncertain, inasmuch as it is dubious whether the bile is secreted in an unusual large quantity, or, being more acid occasions by its stimulus a more copious effusion. Very probably both have a share.

On the other hand we observe that the Cholera morbus or such effusion of bile, frequently happens with any fever either preceding or following, so that what ever be the change of the bile, it does not necessarily produce fever and therefore if we can find other causes we shall be led to suspect that any state of the bile whatever does not produce fever on any occasion. That it does not, will appear from other considerations, for we say that in case of various autumnal fevers, especially a copious afflux of bile, may occur from several causes. Which afflux we shall shew to be the con-



In the first place, from what has been said, we know that the attack of fever is attended with a Constriction on the surface, I mean, its Vessels, which is owing to debility. From thence the blood will be sent in less quantity to the extreme vessels, and must therefore be accumulated in the large ones, and, for evident reason, especially in the Venous System. and not only this, but in general, while the Vessels of the surface are constricted, it must be determined into the Vessels of the internal parts, particularly into what is called the Hypochondriac System, where there is not only the largest proportion of Venous blood, but also that which is more difficultly transmitted. Hence when the blood from want of Exercise is not sent in due quantity to the Extreme arteries, it is accumulated in an unusual quantity in the Hypochondria.

This will account for, and is confirmed by, the congestions so frequently formed in the System of the Vena Portatum in those who die of Intermittent fevers. Thus too, Harvey upon dissection found, that in those who die of Intermittents, the blood was accumulated in the Lungs, right Ventricle of the heart, and other Vessels. Cleghorn

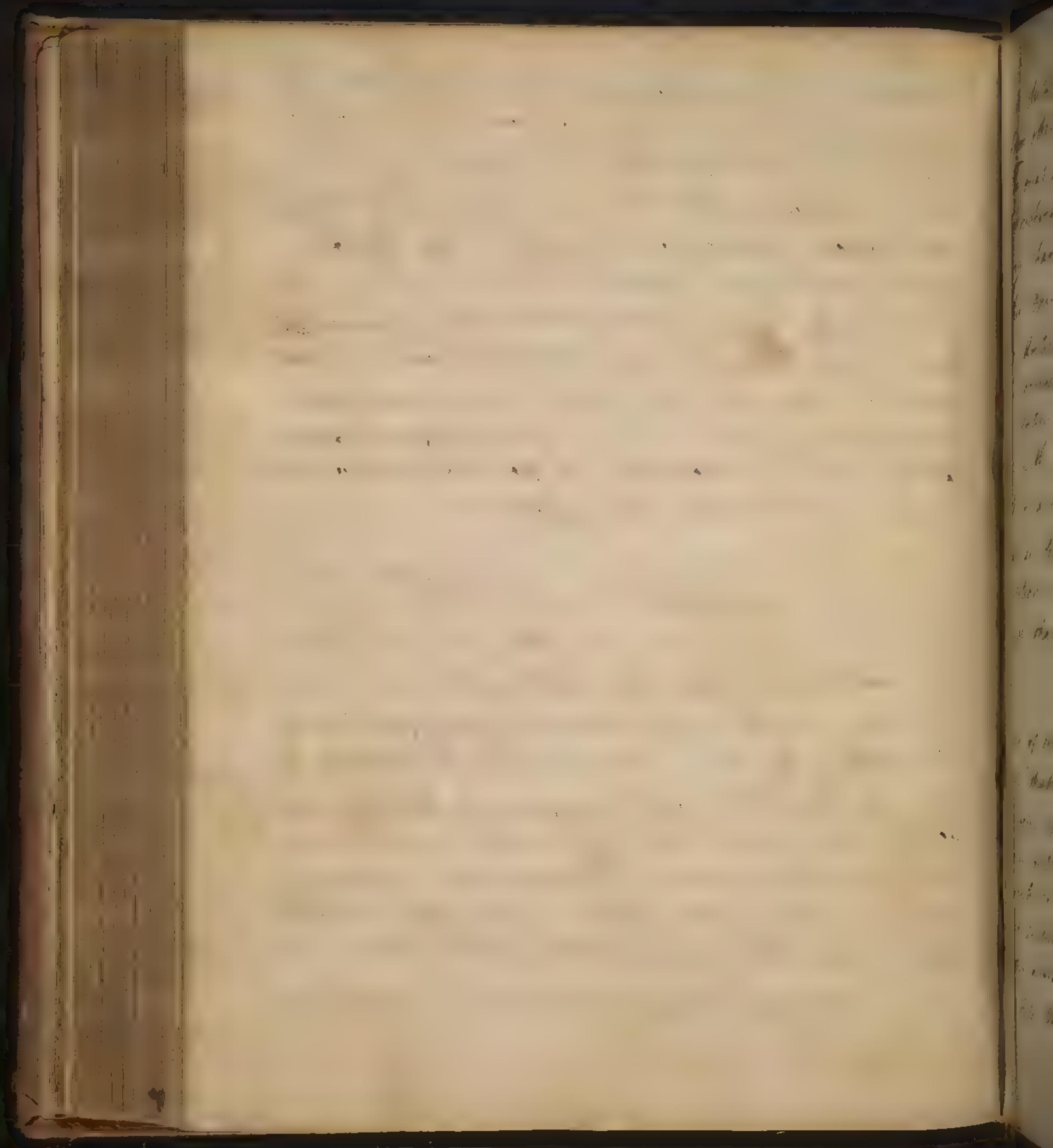


128

Cleghorn observes particularly, that he found the Spleen enlarged to the unusual size of four or five pounds weight, and at the same time of 10 soft a Consistency, and red Colour, that it had the appearance of Coagulated blood more than any thing else - This, therefore, accounts for a more copious secretion of Bile - In the Sporadic Intermittent Mr Cleghorn observes, that there is not the usual quantity of bile poured out than there is in others - but still there is an excess above the natural quantity - and in Autumnal fevers it appears that the bile is in a condition to flow more copiously; but by no means is this the cause of the fever.

Also I can explain the copious efflux of Bile in fever on another footing - Vomiting it is may be considered as a cause of it; for nothing is more obvious than that Vomiting, forcibly excited, agitates and indulges the Biliary Ducts - and by the inversion of the Peristaltic motion the bile is thrown into the Stomach, &c - Now the evacuation of Bile in fevers by Vomiting will be in remarkable, because here there is a cause occurring, which promotes its excretion, viz, the concretion on the Surface, which has this effect by determining the blood more copiously to the Liver -

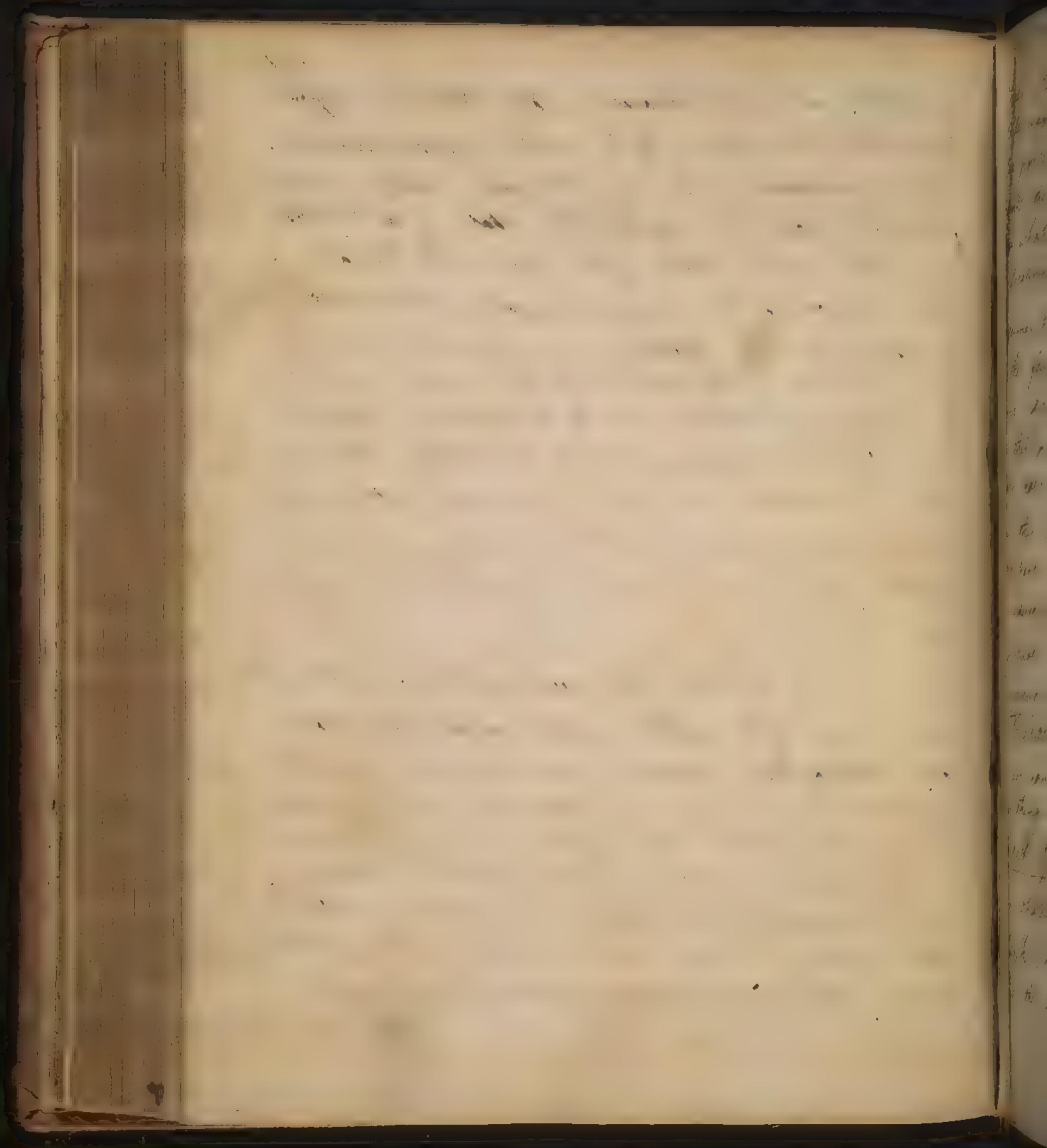
Further, it will be still more remarkable  
in



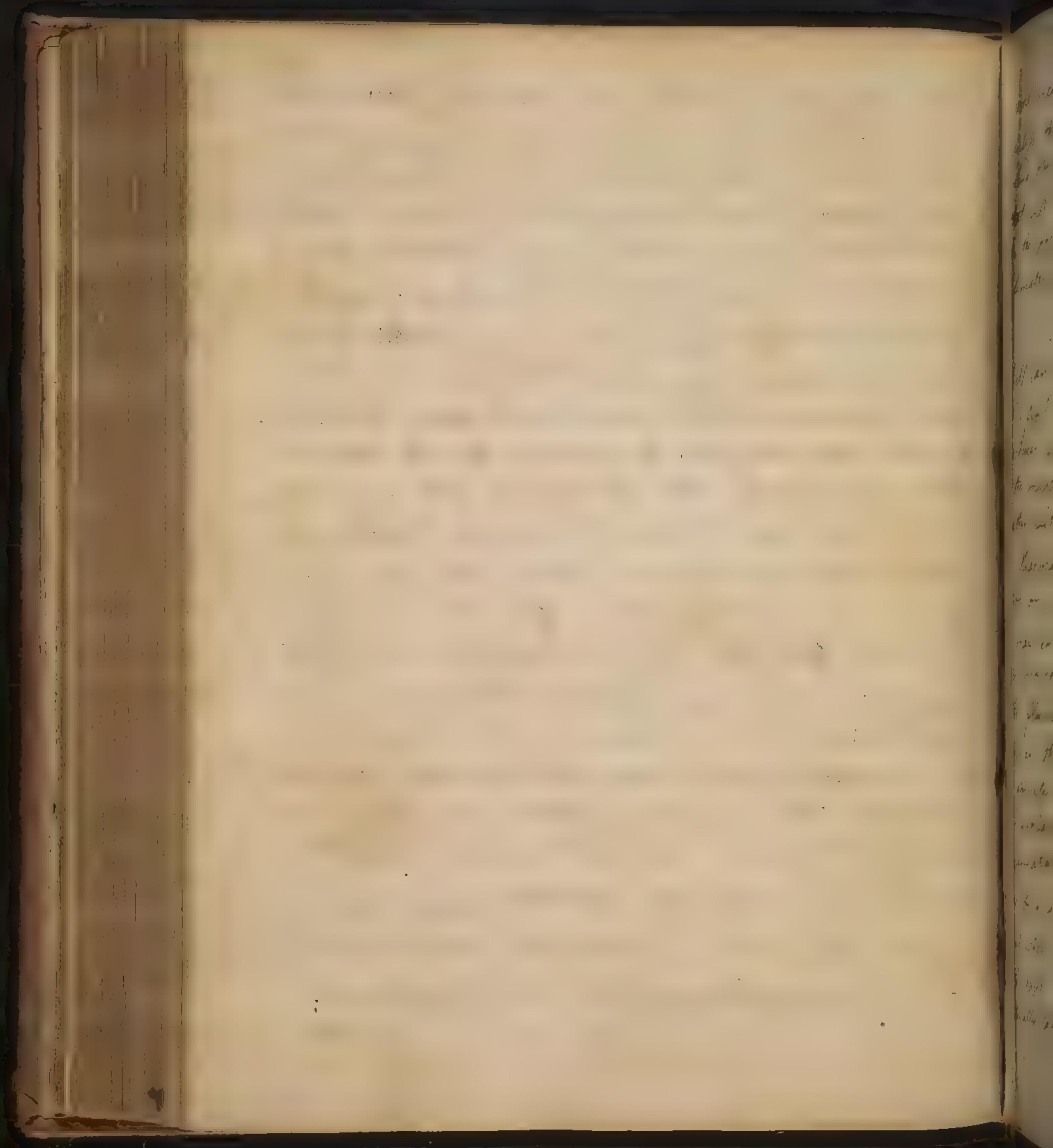
129.

in autumnal fevers, because in these the bile is disposed, from other circumstances, to be excreted in greater quantity. The great discharge of bile may, therefore, happen without furnishing ground to say that the state of the bile has any share in the cause of the fever; notwithstanding this opinion has been very universally adopted both by Antients and Moderns. I might here enter into the consideration of the opinion concerning this, held by the Antients and Moderns. As to the former, I do not meddle with their opinions, because I maintain they were not in a condition to reason on a matter of this kind. But as to the opinion of M<sup>r</sup> Senac, who, from his great erudition, has acquired a deserved reputation, I must observe that

In his book before quoted, after rejecting the opinions of every other author on this subject, and particularly that of Van Swieten, gives one of his own, which he looks upon as more probable. Viz. he refers the cause of fever to the bile. But he himself gives argument enough to refute it, had he attended to them - (vid. De Melcondita &c.) He observes that there are certain other disorders, in which people excrete great quantities of bile, both upwards and downwards, and yet have no fever.

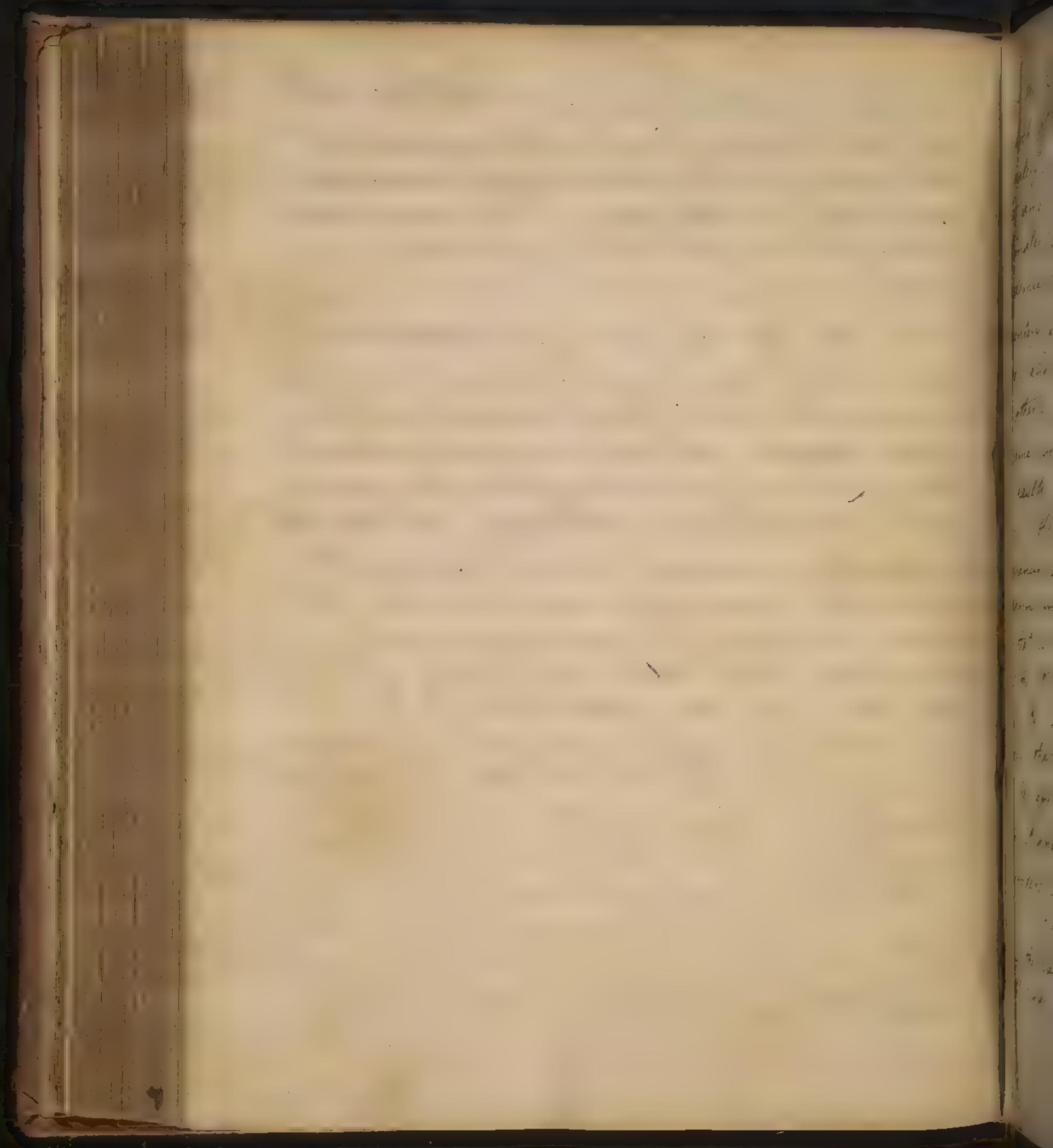


Fever - Nay he even takes notice, that in Jaundie the Bile may be diffused over the whole system, and yet no fever be present (I would wish this book to be in all your hands, though I much doubt if it is - therefore I read to you what he says) - also in his second Chapter, where he is treating the Sarias Sententias &c, he gives another argument which is very conclusive against this Opinion of the fever depending on the bile - He uses much the same arguments that we do with regard to Sennitum. In this place therefore he concludes that the Cause of fever does not act in the Primo &c. You may examine this at your Leisure, and observe whether every word here does not apply to what he afterwards says of the Cause being that the Bile - Upon the whole then I conclude, that the Bile is inadequate to the effect of producing Fever, and that even those we so general by <sup>calf</sup> Bilious Fevers are not owing to the bile - But we are convinced that Intermittent fevers are owing to something taken in from without, viz, what we call Marsh-Offusia - and <sup>of which we</sup> shall say more hereafter - For whatever be the state of the Bile, if we avoid Marsh-Niamata, no Intermittent fevers are produced. Yet the circumstances of the Bile may often, in  
some



some measure, influence our method of Cure. But unless the Reception of marsh Effluvia conurs, as Dr Lind observes, it is not the heat of the Climate alone that will bring on these fevers (See his ingenious work on the Preparation of the health of Europeans in warm climates.)

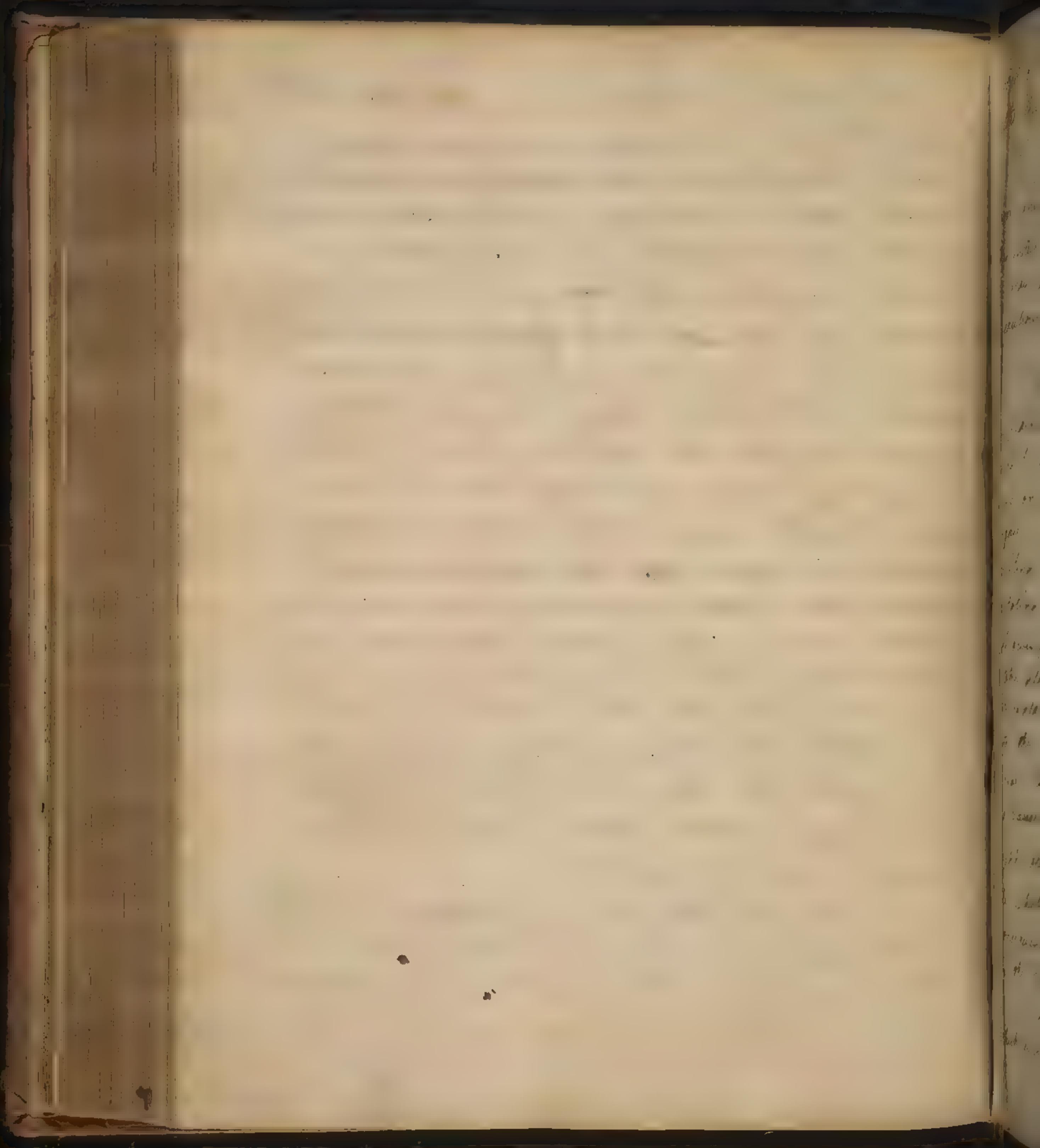
M<sup>r</sup> Senac does not suppose that the Bile of itself can acquire force enough to produce fevers, but that it is first mixed with the Febrile Miamata, and then produces its effects. and here I must allow that the notion of the mixture of the Miamata with the Bile is not altogether without foundation; for though I maintain that the Miamata only produce fevers in Consequence of their action on the Nervous System, yet I will not deny that they may enter the Fluids, and act as a ferment in them - and moreover I say, that they may associate with some of the Fluids more than others, and with these more or less as they are in different conditions, so as to make the affinity of the miamata with them greater or less. This probably is the case with the Bile. The febrile miamata may unite with it, especially in autumn, as to occasion particular disturbances in the Menses. But when I have made this Conception, I say it does not apply to the case of fevers, but is what I presume actually takes place in Dysentery. This is probable; for



for the Dysentery is a disease arising from the same marsh effluvia, which most commonly occur without Dysentery - and Dysenteries also without fever, at least in the same form. It has been observed so in warm climates, when Dysenteries and tertian fevers are epidemic (vid. Cleghorn) that those persons who had the Dysentery were less liable to be affected with a tertian fever (and vice versa) - the one being a mortality against the other. W Cleghorn too gives a confirmation of the same with regard to the difference between Children and adults, as they are more or less liable to tertian fevers. He quotes a passage to this purpose from Celsus Aurelianus, and observes that the ancient reckoned Children more liable to epidemic tertians than others, but says that in this he differs from them; for though it is certain that the Bile and Phlegm of Children are much more liable to disorders than those of adults, and he had observed that Bilious Diseases first appeared among Children, yet he asserts that they are less liable to fevers. Hence then it appears, that the cause of Fevers and Bilious Disorders is somewhat different.

I have said this much on the subject of Bile being the cause of fever, from a regard to the opinion of W Sinai - also to Sir John Pringle, and even W Cleghorn,

for



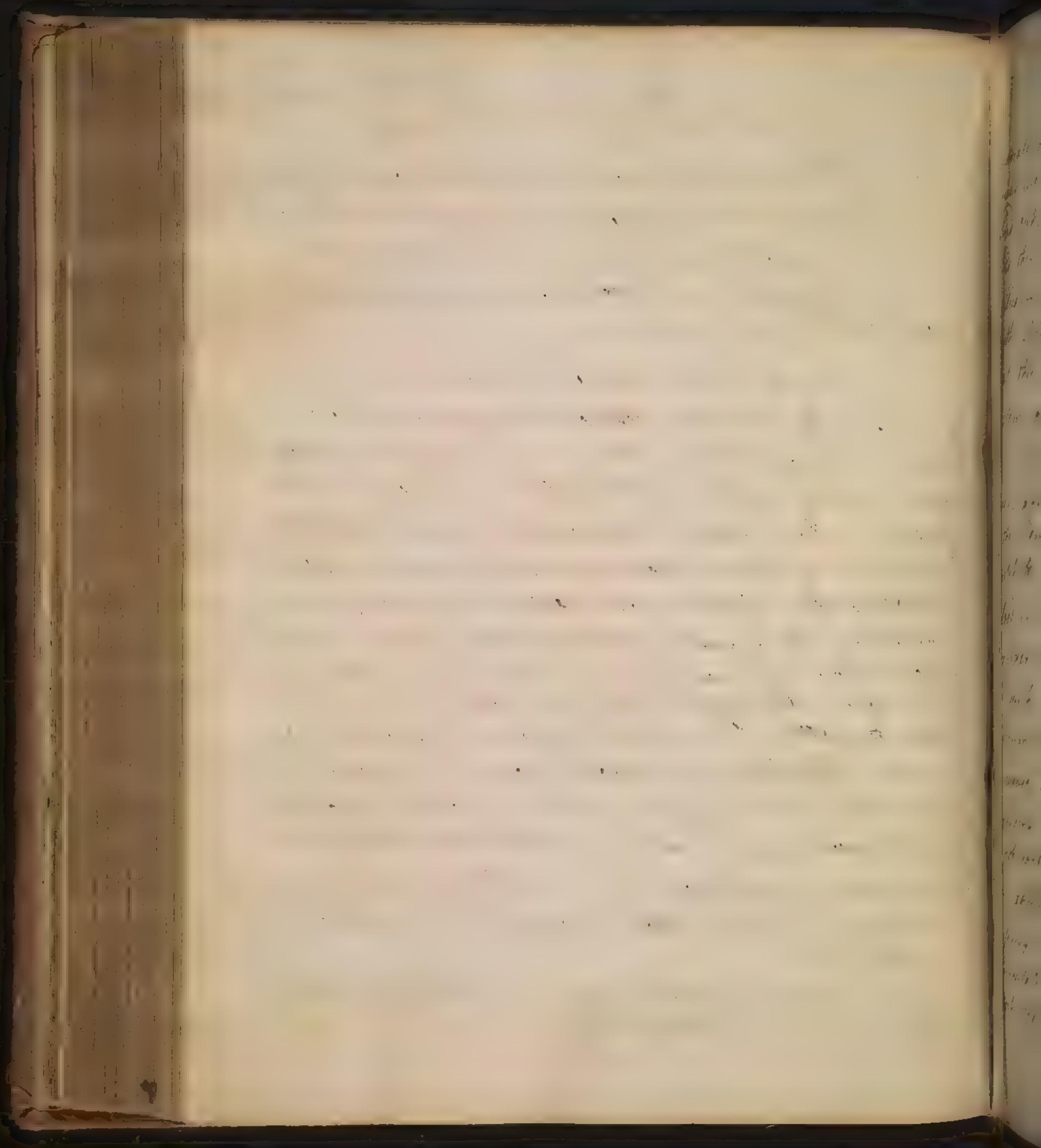
133.  
for all of them I am more or less inclined to the opinion,  
altho' they only give some hints to that purpose -

We must next proceed to take notice of the Sump-  
tum, and explain the Symptoms expressing its state -  
This indeed is a difficult undertaking; but nevertheless I think  
we may, and ought here to say what we can do, or how far  
a cautious Theory will carry us -

Yesterday I was laboring at two points - first,  
to explain the Vomiting that occurs in fevers, which I  
shewed to be consistent with our general system, and to  
depend on the debility of the system and Spasm on the  
surface - And secondly, I endeavoured to show that the  
Vomiting was by no means owing to an acrid matter  
irritating the Stomach; and particularly that it was  
not owing to a greater efflux of bile, which is observed  
to take place in many fevers - But we found that we  
could explain this efflux of bile upon the same principles  
with the other Phenomena of fever, agreeable to our  
general Doctrine; - and that it was not to be considered  
as a cause, but an effect of fever - However, I said there  
might occur what I called an unusual state of the  
Bile, which might influence its function, and be of so much  
consequence in fever that it ought to be attended to  
in the Cure -

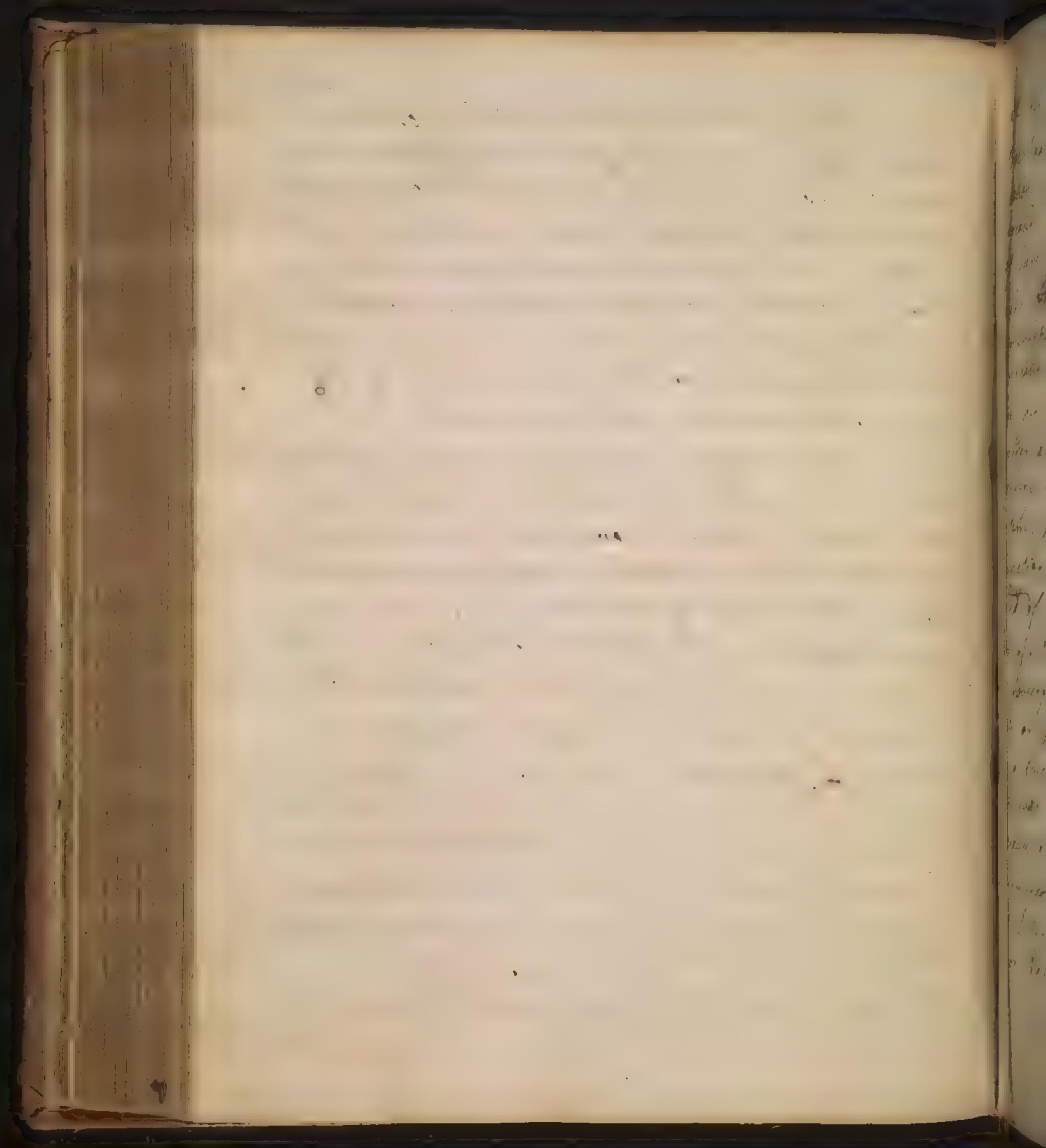
I shall next take notice of a set of symptoms  
which express the state of the brain in fevers -

Every



Every Problem relating to this is of the most intricate nature and most difficult investigation. However we shall prosecute our usual Plan, viz, to find out, in the first place, what is the matter of fact, and then we see what state of the System is thereby implied. As the greater part of fevers are attended with Delirium more or less, it gives a presumption that this is connected with the general state of the System, or the Cause on which fever depends.

When Delirium comes on in the hot fit of fever, and is preceded and attended by Headach, throbbing of the temples, full and strong pulse, &c, we do not doubt to ascribe it to the increased Impetus of the Blood in the Cephalis of the brain; especially when we consider that every Inflammation of the brain consists in such increased Impetus, and is attended with Delirium. There can be no doubt of admitting such a cause, <sup>for</sup> that there is one Species of Delirium depending upon increased action of the Cephalis of the brain, is not controverted. Accordingly all Pathologists agree in admitting this; and indeed name it too general, referring all Causes of Delirium to the state of the circulation in the Brain. Thus (see Boerhaave aph. 701.) in the whole Tenour of this Paragraph for all

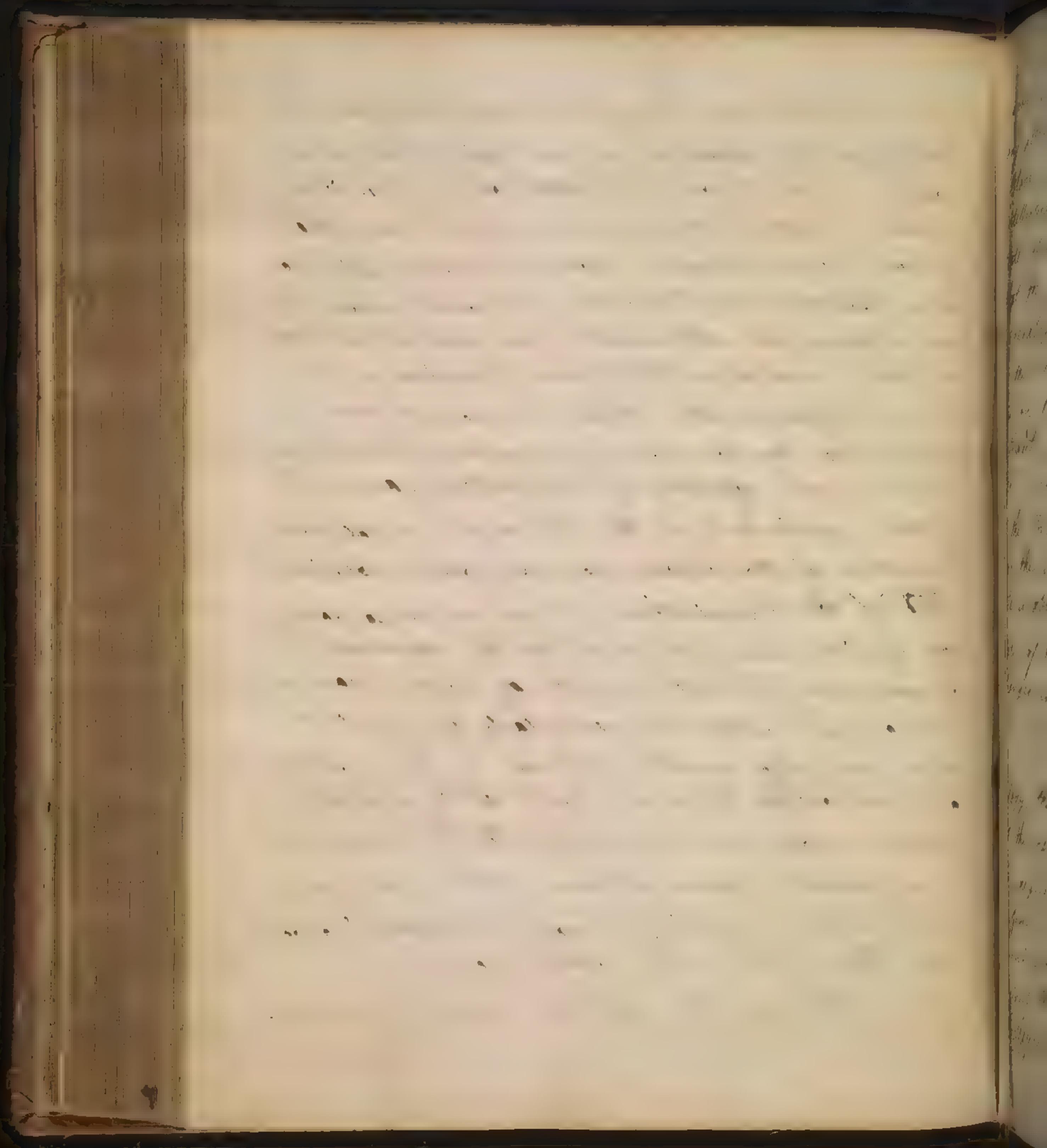


all his "plurimas Causas" I maintain that Dr Boerhaave had chiefly in view the state of the Circulation in the Brain, and that too, confined to increased Impetus - as we may see from his method of Cure, which he gives in the next paragraph - For nine ~~parts~~ <sup>parts</sup> of his Remedies are plainly means of diminishing the determination, and tend only to remove increased impetus in the Vessels of the Brain. It is true his Commentator thinks we may go much further, and says there are Sympathetic Deliria, depending upon affections of the distant parts of the System, particularly of the Stomach - so that the Functions of the Brain may be affected independent.

of the Circulation. - But he had no conception of a Delirium being cured by the application of powerful Stimulants, tales of which I have been told on good authorities, particularly of a gentleman in a fever who removed a Delirium by the use of Wine, and was obliged to drink eight bottles in a day, because as soon as the effect of the Wine was over he immediately became delirious - This is one species of Delirium which, I imagine, neither Boerhaave nor Van Swieten ever thought of.

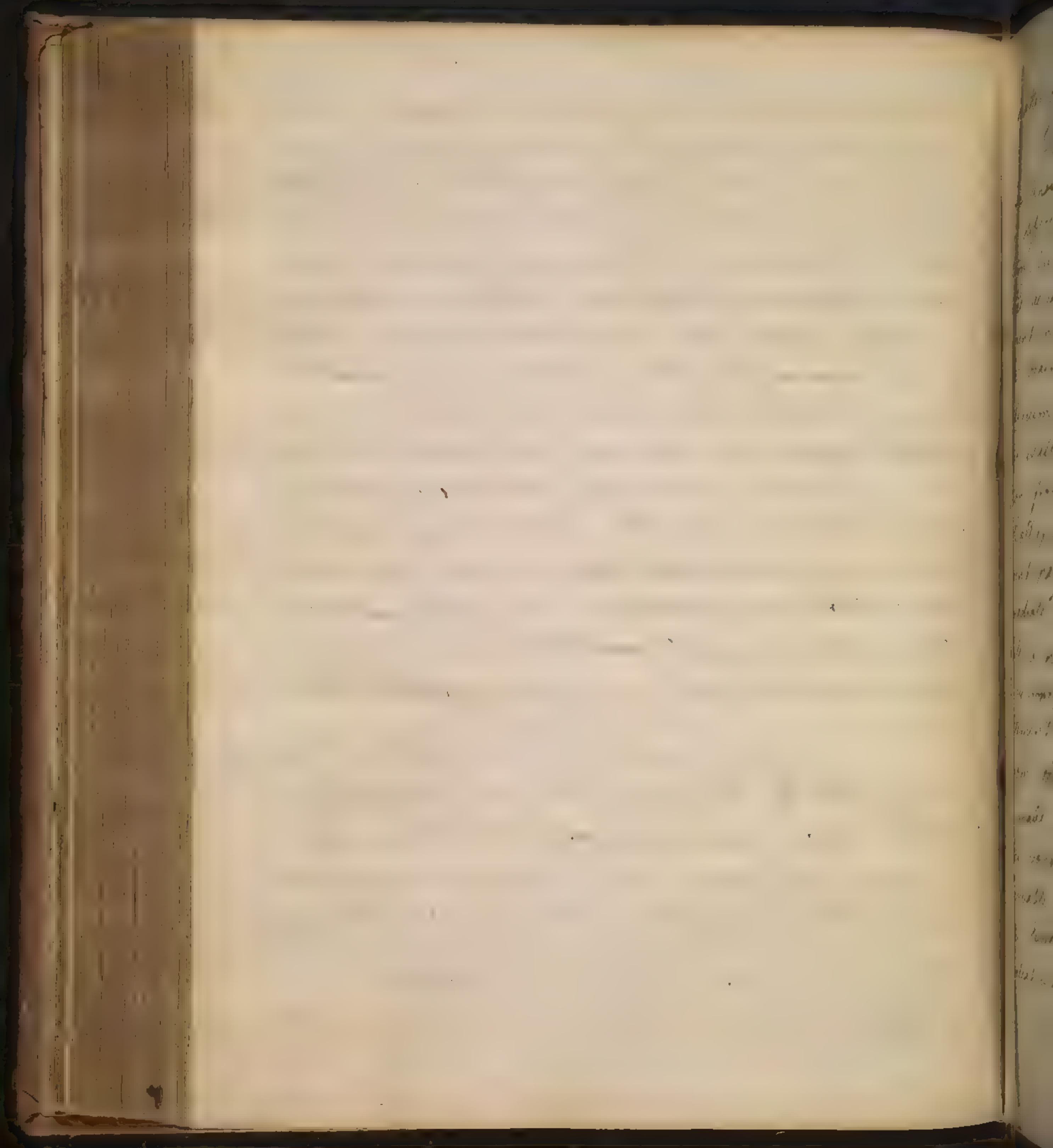
We say, then, that the motions of the nervous

vessels



nervous power may on many occasions be changed without any alteration in the state of the circulation of the Blood and I suppose you know that changes of the Intellectual faculties are only to be sought for in the state of the motions of the Nervous system. It is true that the impetus of the Blood in the brain often considerably affects this. But at the same time we often see the impetus diminished in cases of great exhaustion and on the other hand increased in violent exercise, without affecting in the least the Intellectual faculties. Therefore I look for the cause of the change of the Intellectual faculties in the Nervous system. For the immaterial part of our mind in the living state is observed very easily to correspond with the state of the corporal part, the Nervous system, and changes in the last considerably affect the other.

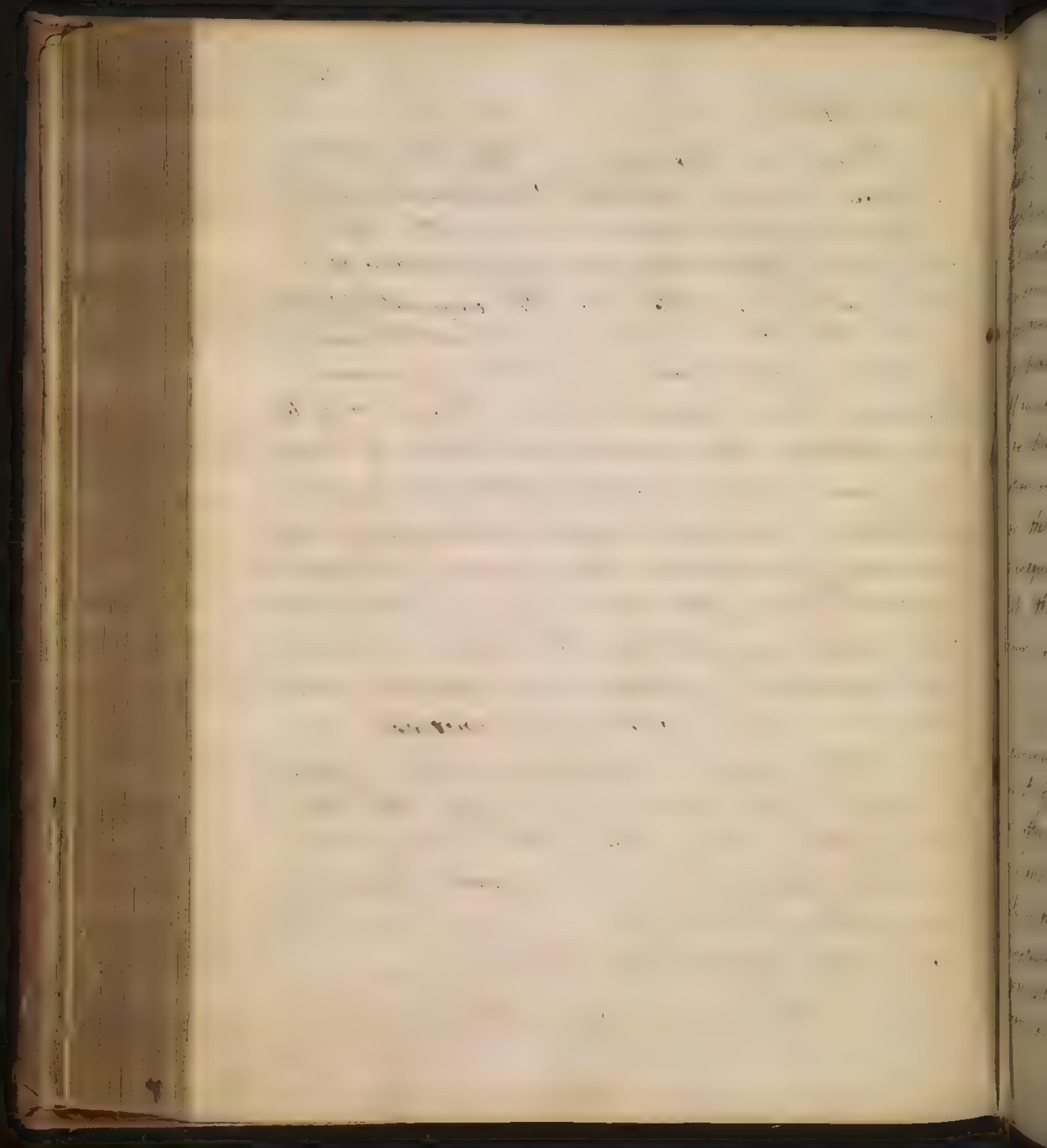
Now I suppose it demonstrated in Physiology, that the energy of the brain, or distribution of the nervous power, at different times is different in degree and force and in this difference consists the different states of sleep and watchings. Now these different states of the Brain may be expressed, without respect to any theory, by the terms Excitement and collapse, which are to be used only as signifying the matter.



matter of fact.

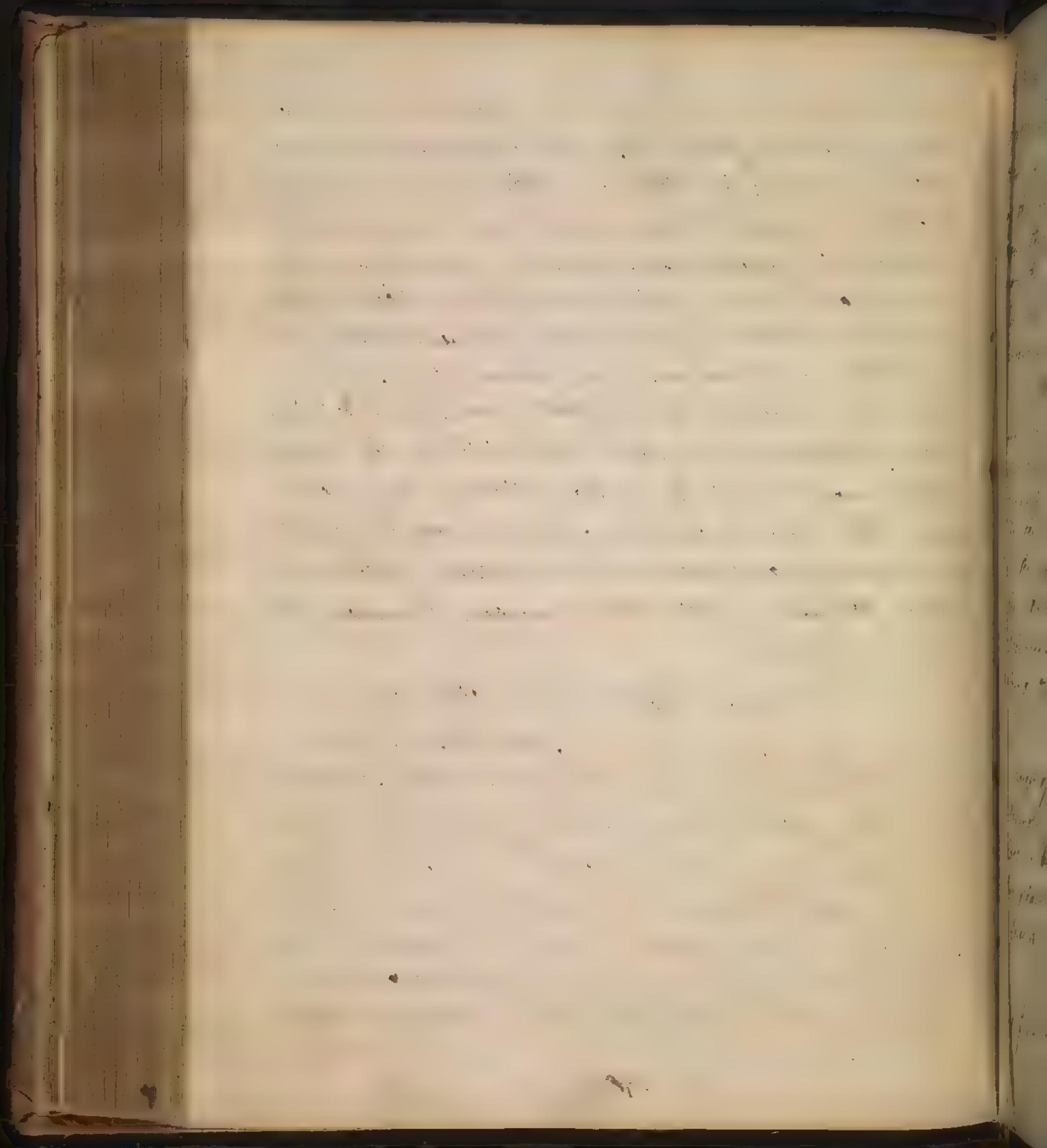
From the Phenomena of Sleep and watching, we know, not only that this Excitement may be in different degrees at different times in the whole system, but in different degrees in different parts of it - and we can easily understand how this inequality of Excitement in the brain, with respect either to the parts of the brain or different parts of the System, can produce Delirium. This is agreeable to some Phenomena of sleep and watching - When a person falls asleep, the transition from watching to that state (that is from Excitement to Collapse) comes on by degrees and successively in different parts - and hence when a person is in this intermediate, <sup>state</sup> a part of the brain may be in a state of Collapse while a part may yet have its Excitement remaining, or by impressions on particular Senses subduing, the Excitement in some parts may be ~~suppressed~~ - Now from this inequality (as impressions may even in this state be made on the Organs) it is manifest that Delirium and Confusion must arise - and accordingly it is observable that this Delirium does not continue till the Excitement, or Collapse, is rendered more complete with respect to the whole -

The same is observable in a person com-  
- ing



coming out of sleep - If by pinching, noise, &c a person be suddenly awakened from sleep, the Excitement is not immediately complete; but there is in the mean time <sup>an</sup> <sup>un</sup>equal Excitement of the Brain, which gives confusion of the Intellectual faculties, or a delirium - according to nothing is more common in such Circumstances, when a person is suddenly awakened by unuseful Stimuli, than such Expressions as "I was out of my senses - half asleep and half awake - did not know what I was about, &c! This is an illustration of a fact - and I think the Explanation may be extended so far as that we may look upon the whole of delirium of Fever as depending upon the inequality of Excitement or Collapse of the brain - which, therefore, is all I think necessary to explain Delirium in fevers -

We know that in fever there takes place a diminution of Excitement of the brain; for we find it frequently proceeds to a deeper state of Collapse, that often attends fevers, known by the Term Coma or a deep sleep - Fever, we observe, is founded in Debility, so that Delirium is sometimes among the first Symptoms - This Collapse, it is to be noticed, is not equal with respect to every part of the body - but is more complete with respect to the animal than to the vital



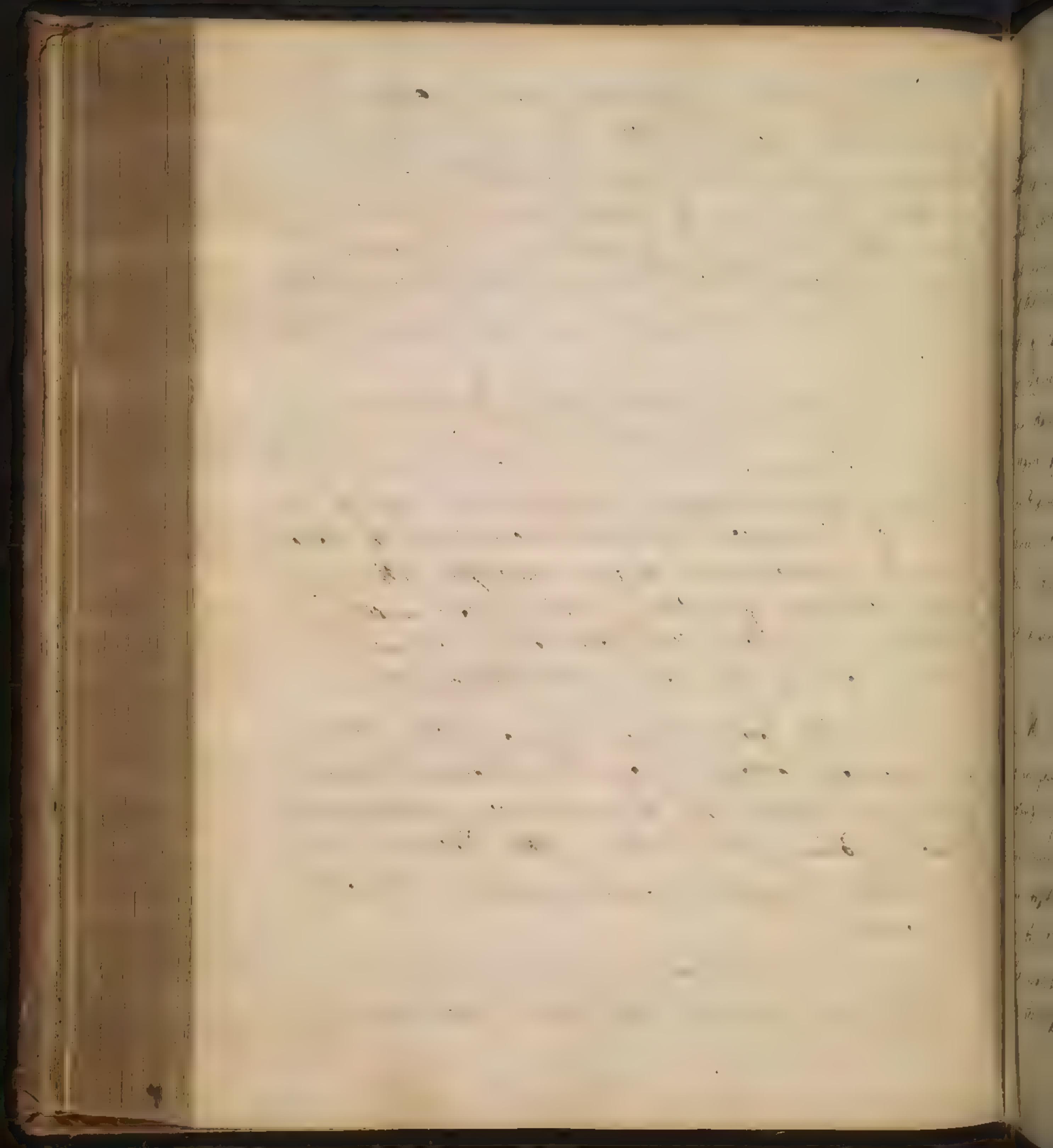
139.

the Vital functions, and takes place in different degrees with respect to the natural - It appears, then, in fever, that inequality of the excitement of the brain lays the foundation of Delirium - Now this I suppose is of two kinds - It may depend upon the excess of excitement, or upon the excess of collapse. These two Causes I imagine give two Species of Delirium -

The first, viz., From increased Excitement, is occasioned by the Impetus of the blood which is a cause of greater excitement; and one on which the Ordinary Excitement of the System in great measure depends - Now while this is increased, and at the same time, the Collapse from the general cause of fever, subsists with respect to the animal functions, such a state will give a Delirium - and it is <sup>this</sup> that occurs to a person waking out of sleep, and in the height of fevers.

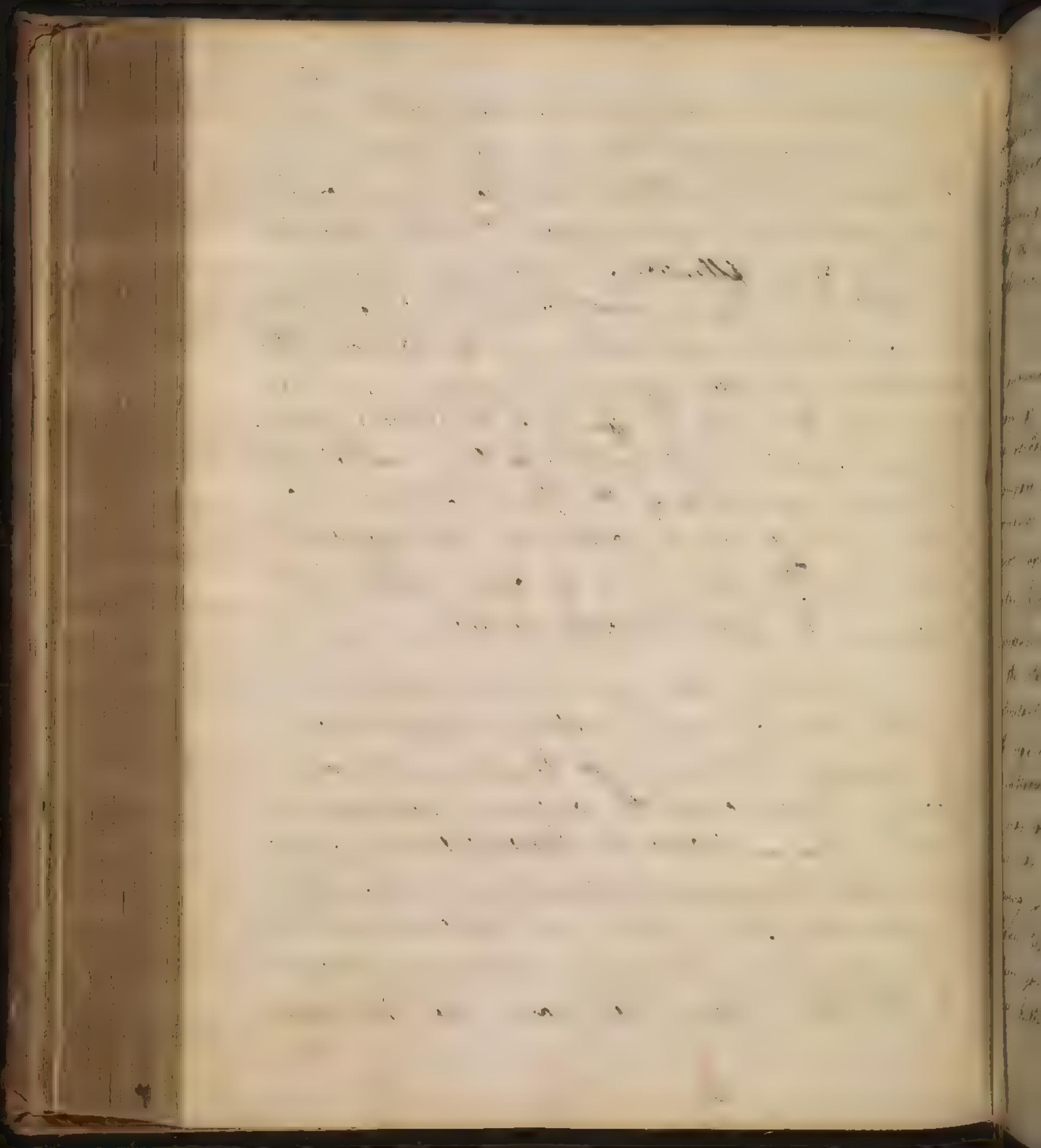
The other Species comes on when there is an excess of collapse, from the Sedative Operation of Remote Causes, and the Ordinary impetus of the Blood is diminished - This is the Delirium that takes place in falling asleep, and in the cold fit of fevers -

Now from these Principles, which we find consistent with the Phenomena of sleep,



sleep and watching, we can explain the whole of delirium in fevers. It is applicable to the Transitory Delirium that happens in Intermittents and also in some Continued fevers, which may be supposed to take place without any topical affection or Inflammatory tendency. But this Delirium appears mostly to depend solely on the state of Excitement and Collapse of the Nervous system, from causes immediately affecting it. Yet there may occur other causes than these, which act differently on the Nervous system. A degree of topical Inflammation of the brain may take place, so as to give more or less of the <sup>phrenetic</sup> Delirium, from whence it will be more obstinate. There may also be other causes <sup>of</sup> Excitement of the brain, which will have a similar effect. But of these hereafter.

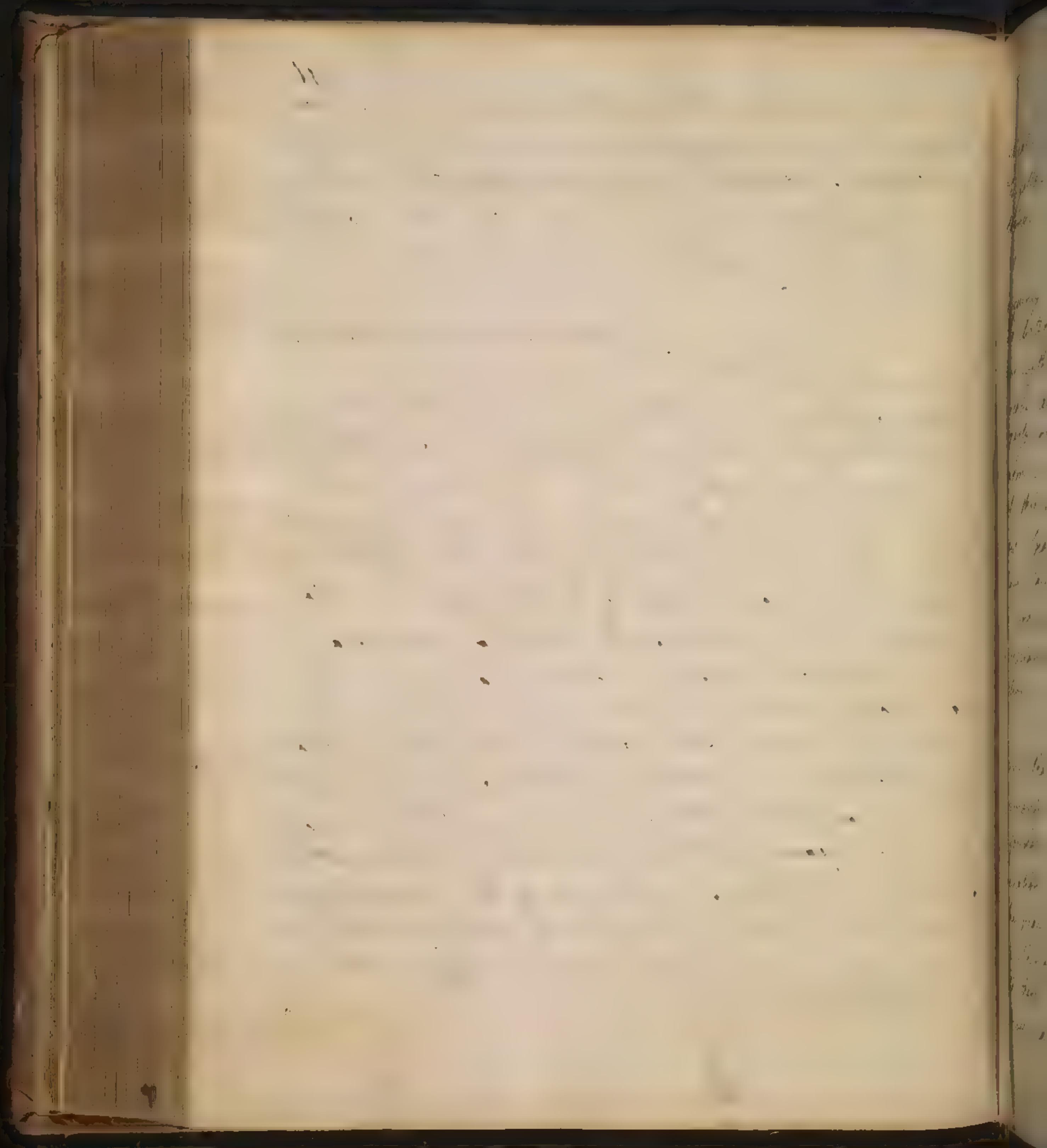
There are still other Symptoms to be considered - viz. The states of sleep and watching themselves, as occurring in fevers; which we must explain on the same footing. If you consult the writings of Boerhaave and Van Swieten on *Coma* and *Perpetuum*, you will find that they refer all to the state of the Circulation in the Brain. But if our explanation of sleep and watching be well founded, this will not always be the case. I hope I have shown that these symptoms may



may depend on the State of the Nervous System alone, dependant of the Sanguiferous, viz, its state of Excitement or Collapse. Moreover, it often shew itself often in the beginning of fever, we may, I think, from thence conclude that the Cause of the Fever acts by diminishing the Energy of the brain -

Having now finished my Ratio Symptomatum, or account of the Phenomena, I here conclude my general Theory of fevers, which I hope is well understood, though you may, perhaps, still have your difficulties. I would advise you to compare it with other Theories. My Theory, I think, recommends itself by its Simplicity. You will find that it depends upon no Hypothesis. It does not suppose any Lentor, Specificity, or Harmony of the fluids, of which we have no evidence; nor any other occult quality, or subtle change in the state of the fluids, which we can never more particularly ascertain. Neither does it respect any theory with regard to the nature of the nervous matter. We have not introduced any subtle Hypothesis of a Nervous fluid. You may consider it either as a spirit, an Ether, an elastic fluid, an aqueous fluid - or what not - and this either flowing in Vessels, or passing along the Medullary substance. Be it still my Theory will stand, whatever Hypothesis you suppose. It does not at all affect what we have hitherto delivered -

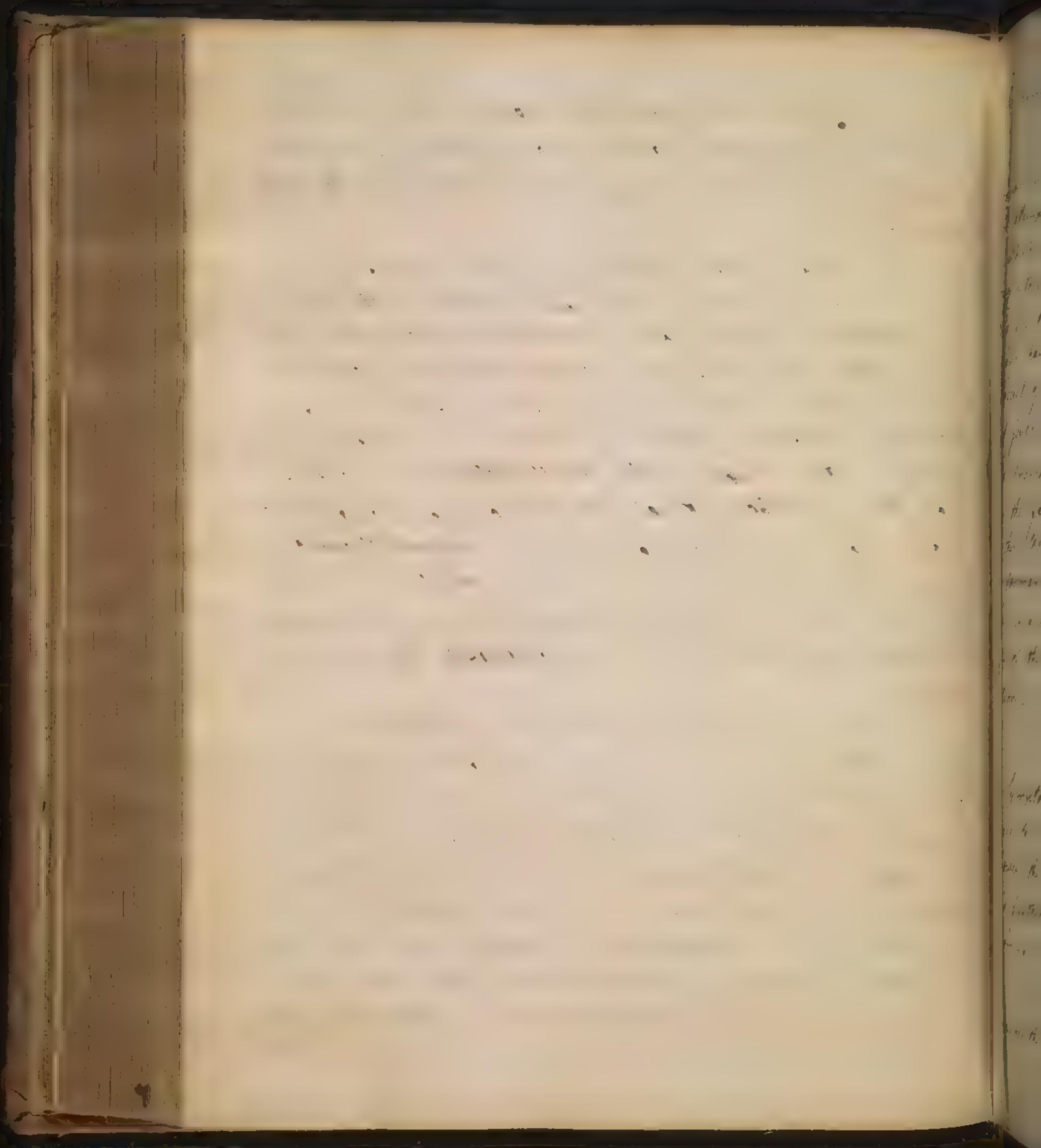
But



But I must now touch upon the more complicated part of the Doctrine - our System is very short. The following is the sum of what we have been hitherto doing.

Some have made fever to consist only in a frequency of the Pulse, or increased action of the heart and Arteries. But I have said that every proper fever begins with a Cold fit. (vid. Hoffm. Thm. I. Pag. 301.) No increased action is either permanent or Troublesome, or properly constitutes a disease, unless when it is begun by Spasm - and I agree with all Pathologists in saying that this is the cause of all the Phenomena that follow. How Spasm induces increased action is difficult to explain. I have laid some foundation for the explanation, but I insist only upon the matter of fact. We conclude from their constant association, that the Spasm is the cause of the increased action -

Next with regard to the cause of the Spasm, we found that it was not a direct stimulus, as has been commonly imagined; but that in case of fever the Spasm is founded on a state of Debility, which is induced by the operation of remote causes. So that the Debility does take place in the beginning of fever, I inferred from the Phenomena, and therefore I assume it as a fact also. and there is certainly all the grounds imaginable for it, if we can judge at all from any Phenomena of

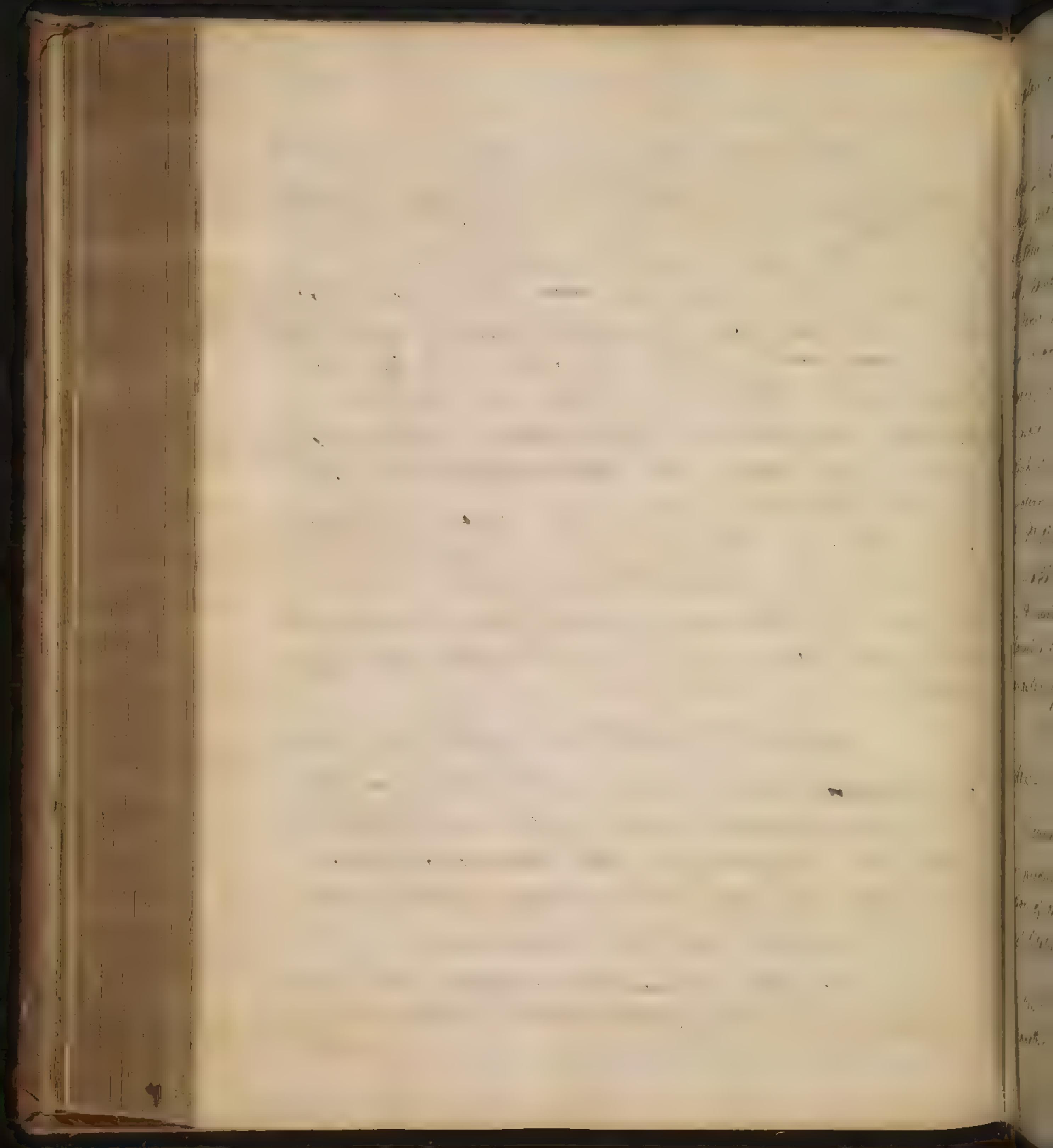


the animal system.

I said that a weakening of motions depending on the nervous energy is a sign of that nervous energy being weak - and attempted to shew how, or give a rationale of the manner in which, the spasm is produced by the Debility - But this you may either take or not, as you please, I only regard the fact - And in the next place I say that the hot fit, which Physicians have looked upon as the fever, is an effect of the product of the other two - In short, my Conclusion is, that fever consists of the three states of Debility, Spasm, and increased action - and that Debility and Spasm lay the foundation of the increased action - and therefore as this last is generally looked upon as the fever, I consider the former as the proximate cause of fever - all this, then, is a short Connexion of facts - You will see the solidity of the Doctrine by going on to the after application -

Afterwards I considered some of the principal sets of symptoms that occur in fever, and showed how they were to be explained on our system - and by the way showed the Insufficiency of other Theories to do this - and further that they would not agree with the Phenomena - all this, then, tends to confirm ours -

Now, then, I proceed to particulars - We are to consider the distinctions of fever, both as matter, and as explained



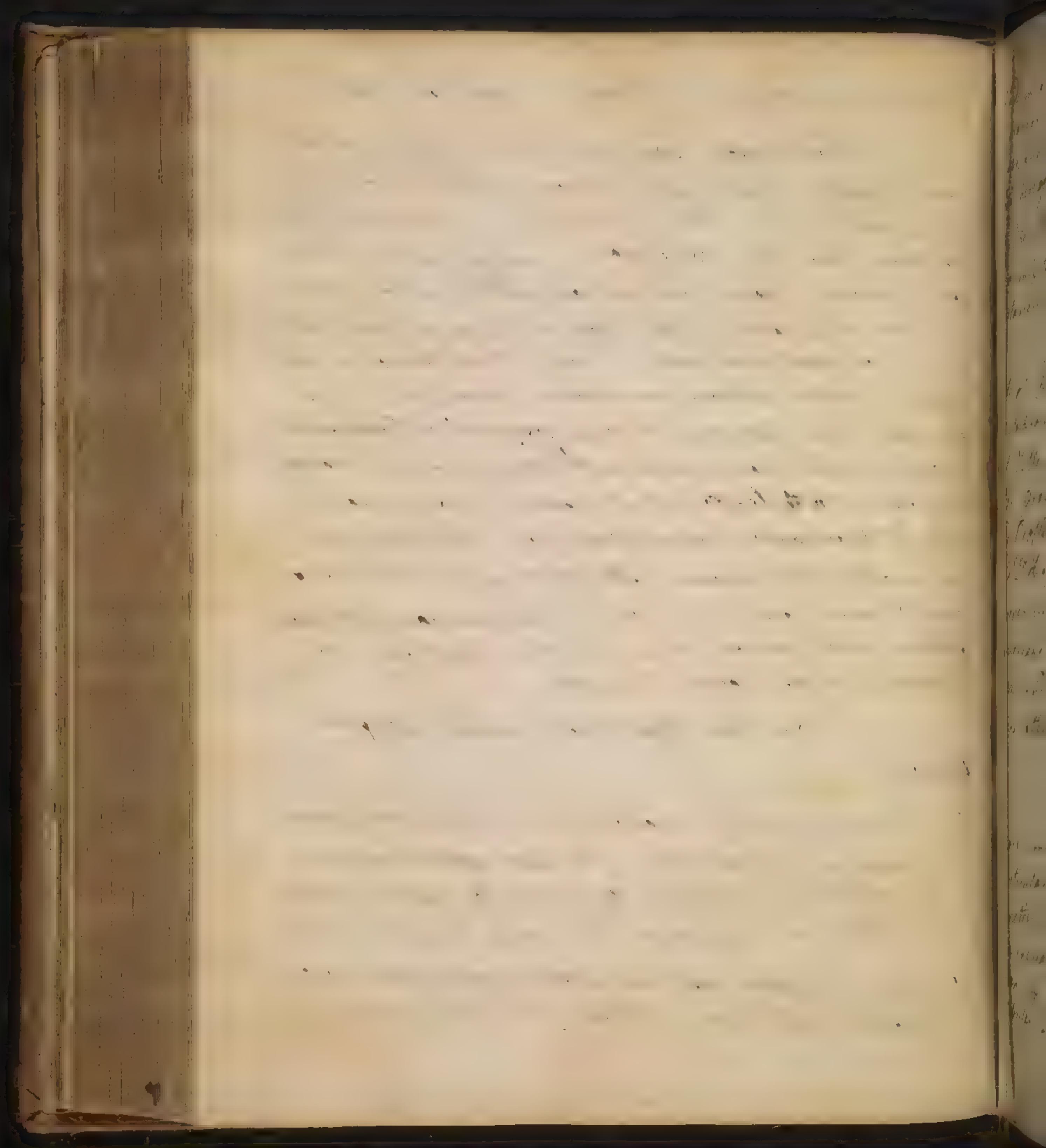
explained on the general Theory we have laid down - <sup>114</sup>

I have before said that fevers consist of the three states, Debility, Spasm. and Enervous affection, which successively produce each other - But there is some doubt how far these three states take place in every Pyrexia. The two last, however, Spasm. and enervous affection, certainly do - and hence the character of the Clap of Pyrexia which I have given is on that foundation. I say "Post Hororum pulsus frequens, viribus artuum immittutus". Here I might have added "Post hororum pulsus frequens" et cetera auctus" by which I should have agreed with the ancient and many of the modern Pathologists. But I cannot by any means agree with Dr Boerhaave's notion (Syst. 571.) - For the ancient and many of the modern Pathologists confine the idea of fever & with lesser when there is an increase of the pulse following the horror. It is this, then, that form the character of the Clap of Pyrexia.

Now this Clap I have divided into five

Orders -

1. Fever properly so called, that is, where the Spasm is produced by Debility - We have adopted a description of this Progrediis languore, cæpitio, et alius debilitatis signis, pyrexia sine morbo locali primario.
- II. Next I suppose that the Spasm may be formed from another cause than debility, viz. a Congestion of fluids

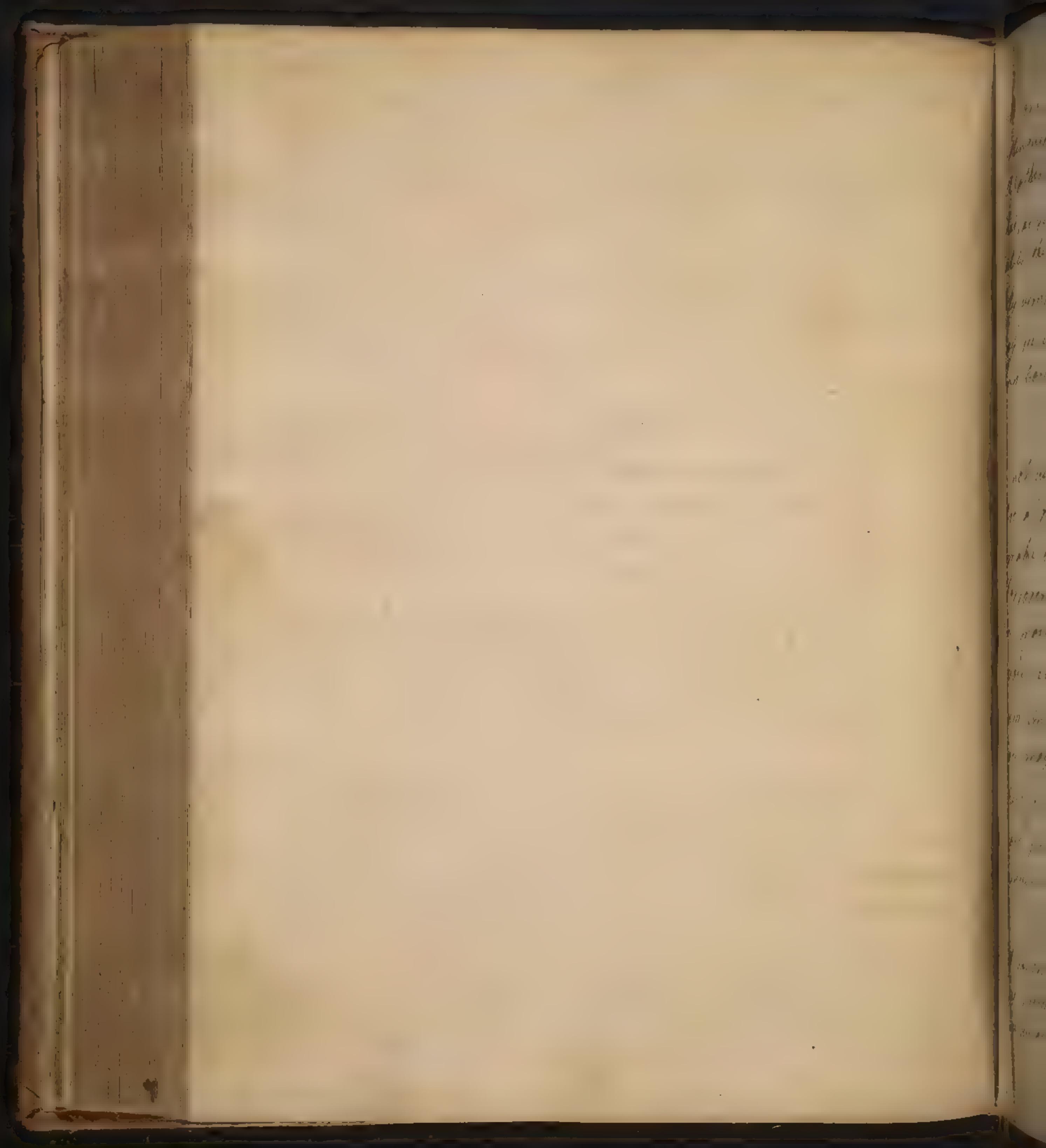


fluids in a particular part - and this I say may act in a manner somewhat analogous to the debility of proper fever, and induce Spasm - But we shall say more of this hereafter - This applies to Phlegmatio. By -

III. The third order, *Lyantheriata*, is in a manner a mixture of the other two; for here the circumstances of both take place -

Now there are all connected under the general title of *Morbi Febriles* by authors - and Linnaeus (of Stockholm) in his *Monology* comprehends them under that title - But you observe that I have added two other Orders of Febrile Diseases, the Hemorrhagia and Profluvia - This is certainly done with propriety and Dr Hoffmann is the only person who has taken a proper view of the actual Hemorrhages, and those cases of excrent action (Profluvia), which belong to other Orders, and should certainly come under this class, as being attended with Pyrexia.

I am now entering on what admits of more immediate application, viz. what relates to particular disorders, & distinguish them from one another - There is a set of diseases attended with an eversion of the Pulse and of the heat - Such have been by authors distinguished by the Term morbi febriles, or fevers, and at all times have been ranked

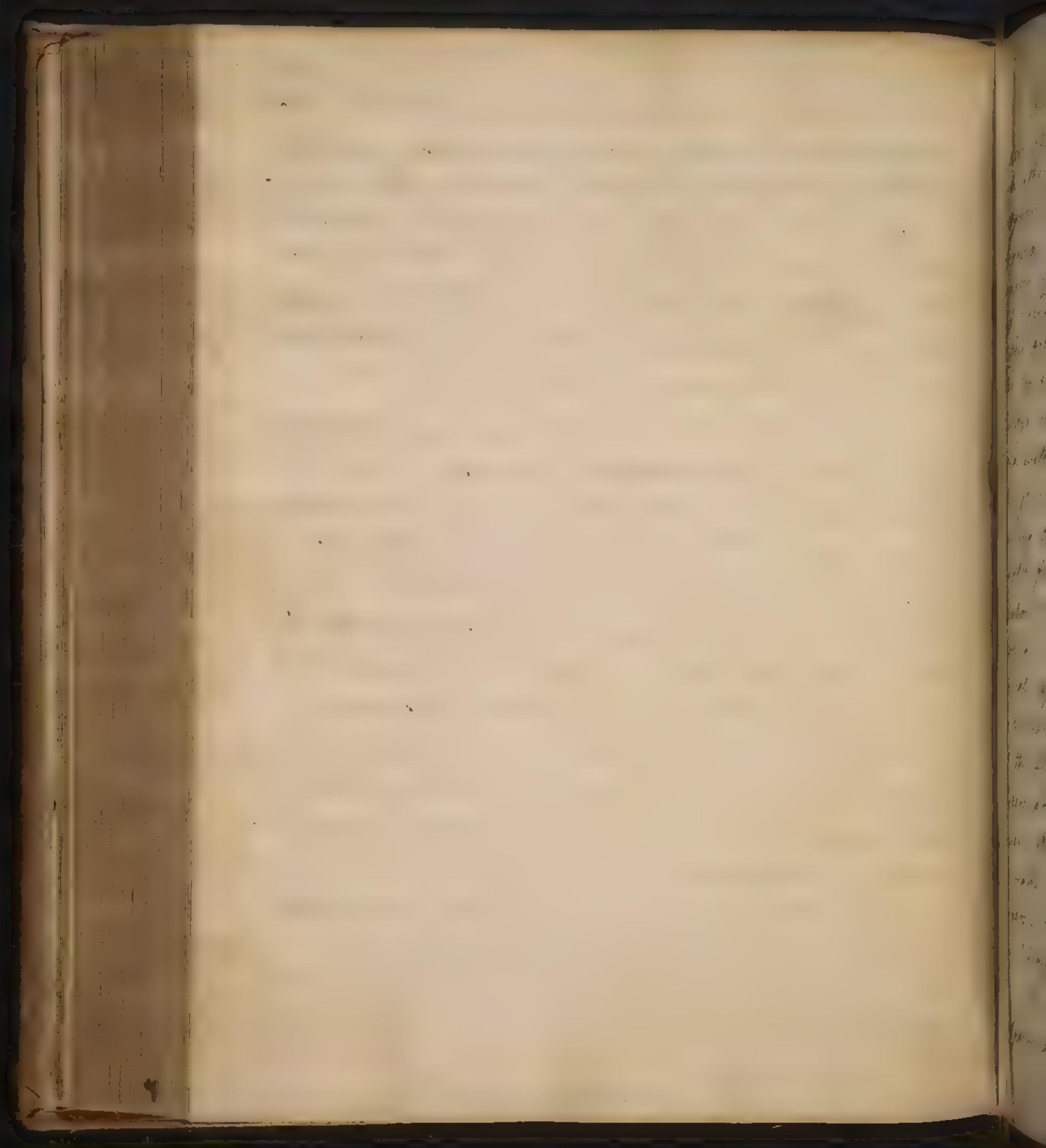


into one Clap - We are to examine what it is that distinguishes this Clap, from other diseases, and from all other circumstances of the animal Economy. This, as yet, has not been well ascertained. Till very lately the increased pulse and increased heat were the only symptoms attended to in the distinction, as you may see in Boerhaave's Aphorism 571. and Bon-Sweat's Commentary on it (which I refer you to).

But it seems now generally agreed that this is not sufficient, but that it is necessary to take in also a preceding fit of horror - In this way, then, I make out the Character of my first Clap, "Post Horrorem Pulse frequens," &c. and as there is likewise in most cases a considerable loss of strength, to avoid ambiguity there is subjoined "Vitibus Atque immunitate" - Besides these, if you please, you may add Calor auctus - To this general Clap I have given the name Pyrexia, as I could find none more proper, and as this seemed to me to be in a great measure arbitrary -

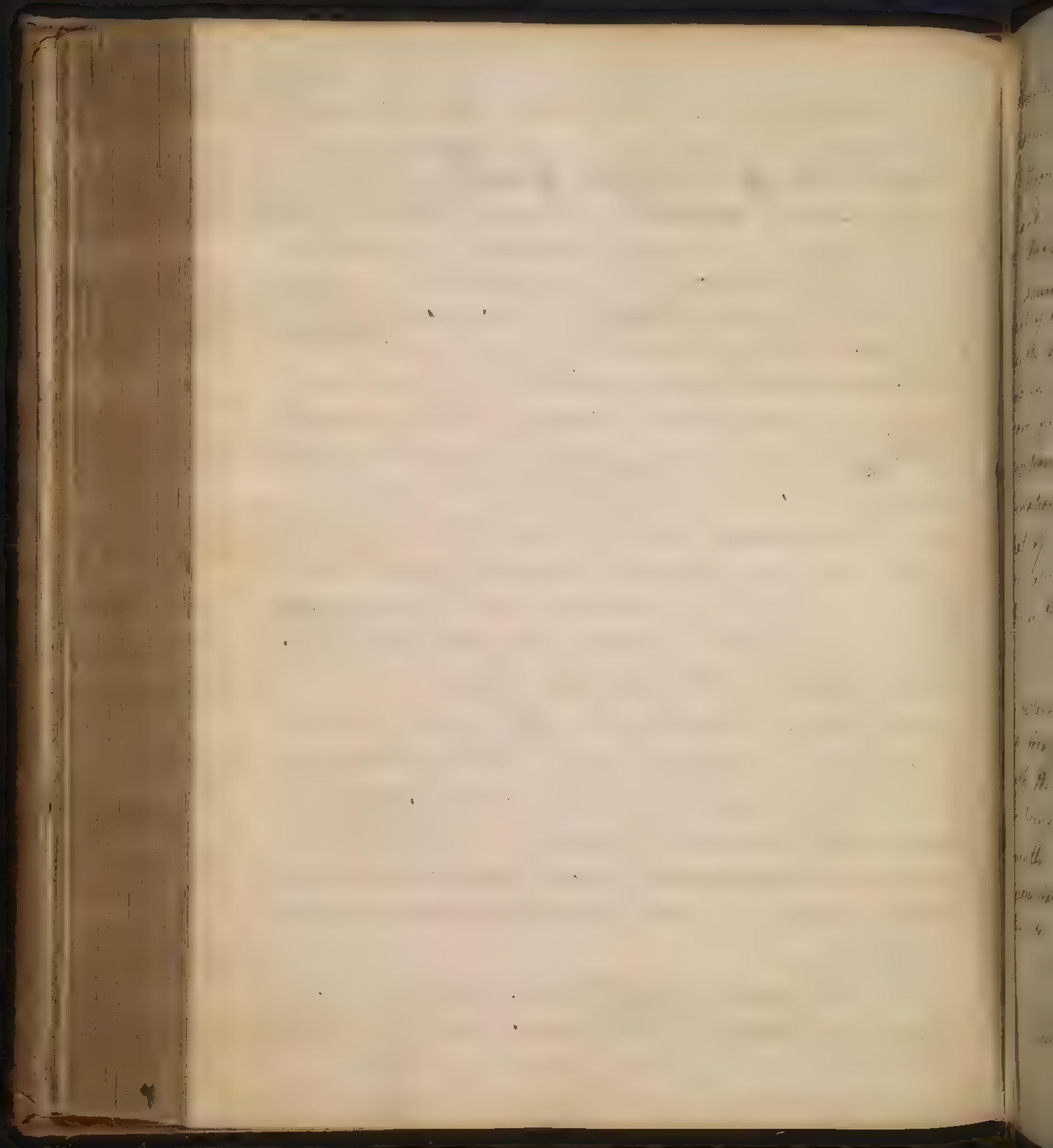
This is a very large Clap, the particular diseases it contains being very numerous; and therefore before we proceed to speak of particulars it is necessary that we divide it into less general heads -

Accordingly



Accordingly I have divided the Clap into five Orders, which in my opinion are very distinct from each other. To the first I give the name of febres - "Prografs langore, cestudine, et alii Debilitatis signi, "pyrexia sine morbo locali primario". This term (febris) is applied by Physicians to all Pyrexia, or our whole Clap. But I find it necessary to apply it more particularly to this order, and whenever the term is at all appropriated by an author to any particular set of pyrexia, it always corresponds to our character of febris, viz, a pyrexia without any Local primary disease. Whereas the other four Orders are distinguished by topical affections attending the Pyrexia - and then are further easily distinguished from one another by the nature of this topical affection. The Phlegmarias have a primary topical affection or Inflammation. The Exanthemata have numerous topical affections following a fever, though there are one or two cases where there are but few, yet the distinction of the Order is sufficiently plain. And the other two Orders are cases of increased evaporation following fever. What I was chiefly anxious about yesterday was to make the application of our Doctrine to these several Orders. I shall now, then, distinguish them somewhat in Theory -

The whole Clap of Pyrexia, I have said, has Spasm and horror. The horror, as I formerly observed



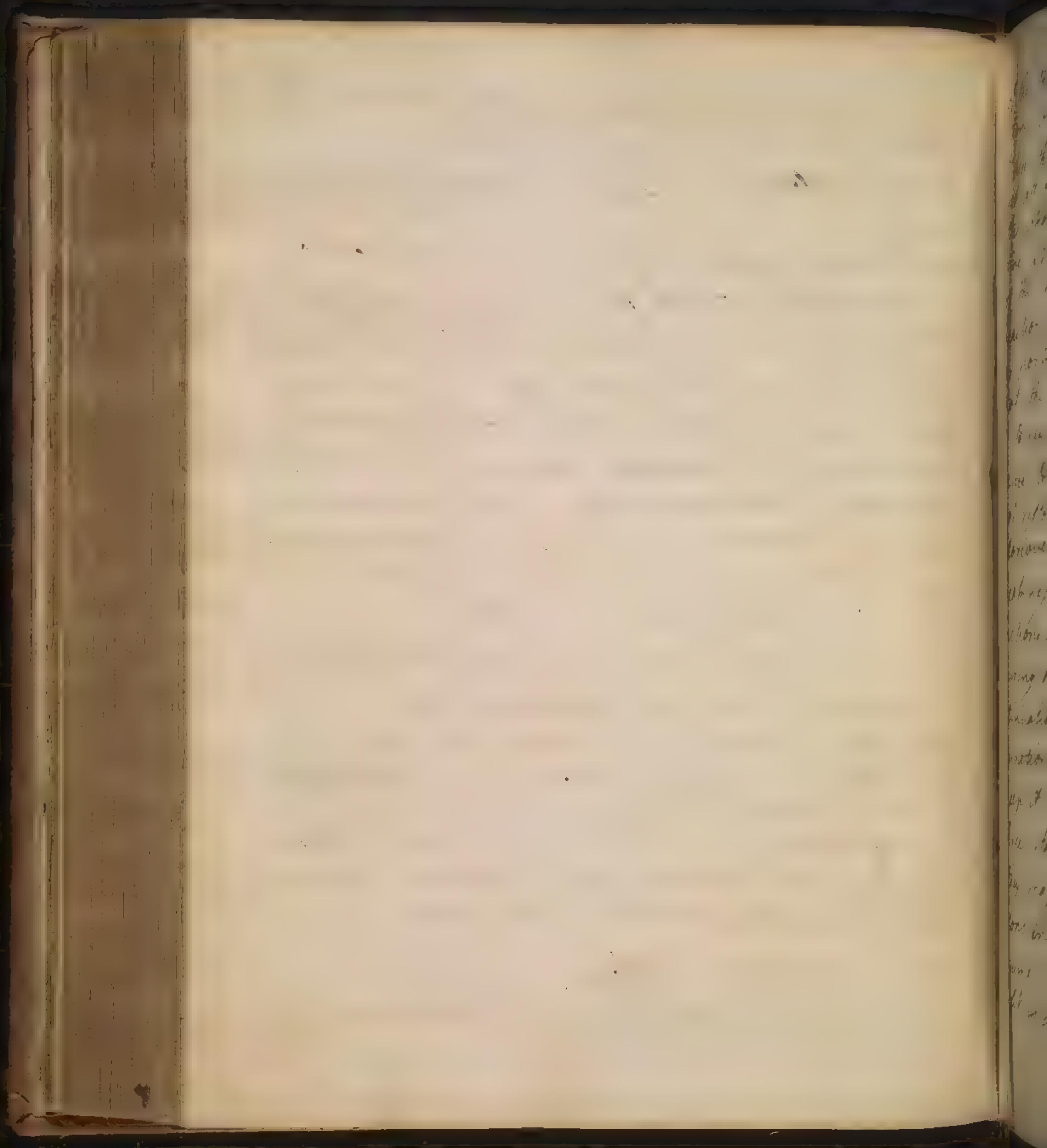
obscured, signifying or expressing the formation of 148.  
sperm. But this arises from two causes -

- I. From debility, as happens particularly in fevers -  
and,
- II. From Congestion, that is to say, a preternatural accumulation of the fluids in any particular part of the circulatory system. This last, I think, evidently applies to the Phlegmasia and Hemorrhagia and in Exanthemata, where there is a fever arising from preceding debility, which is followed by violent Eruption of Phlegmasia, there seems to be a combination of these two causes. As to the last Order, that of Profluvia, I have some doubt about it. They also have sometimes a preceding Debility. But this is to be considered further hereafter.

Such are our distinctions of the Orders, by external and obvious symptoms, independant of all theory. But at the same time, if I can distinguish them in theory, I shall think it a proof of this being altogether a natural Class. and consequently that our System gives a division of those diseases that will be more useful in Practice. - I am now then to consider these Orders in the Causes -

### Ord. 1. Febres. (strumous diseases)

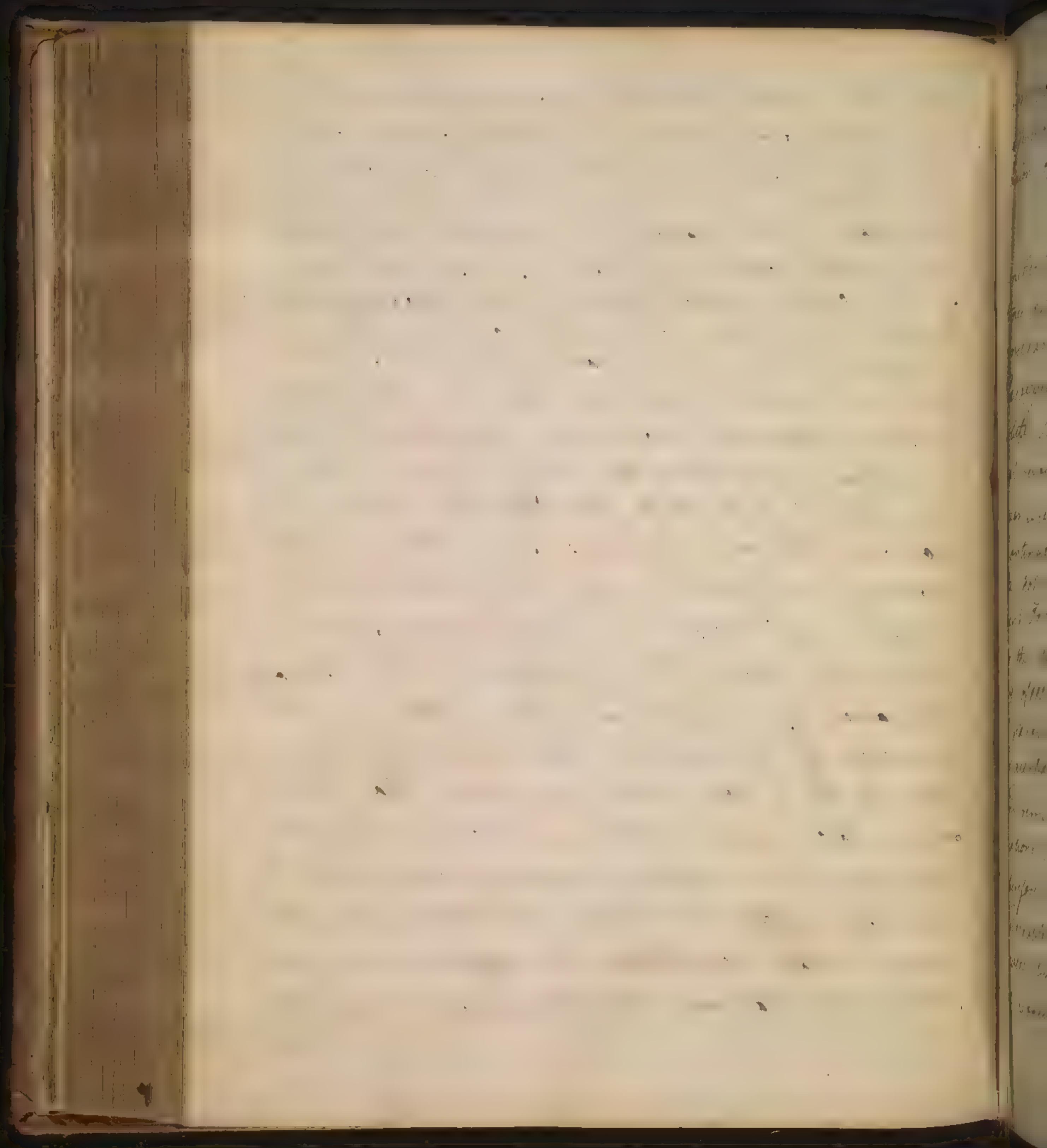
Then, I have taken much pains to prove, consist of



119.

of the three states, Debility, Spasm, and insensibility, which are Causes and Effects of each other - These three states, though they mutual<sup>ly</sup> affect each other, are yet all of them, in some measure, present during the whole of the Paroxysm (except perhaps a little time at the beginning and end). For in the time of the hot fit, notwithstanding the appearance of reaction, when there is no sweat, or very little in proportion to the increased action, I conclude that the Extrem<sup>e</sup> v<sup>e</sup>spers are still Constricted; that is to say, that the Spasm still subsists - and from hence do infer that the Energy of the brain is not restored, at least to the Extrem<sup>e</sup> v<sup>e</sup>spers - But Moreover the same appears from the sense of weakness or Debility subsisting in the animal motions - and also in our Intellectual faculties during the whole of the Paroxysm - It is the continuation of Debility and Spasm that gives the duration of fever; and these still subsisting keep it up - Now when we admit that these three states meet together, we can perceive that they may be in different degrees and proportions in different cases; and this it is, I presume, that constitutes the differences in fevers. Let us see that our Theory always be exactly

Cor

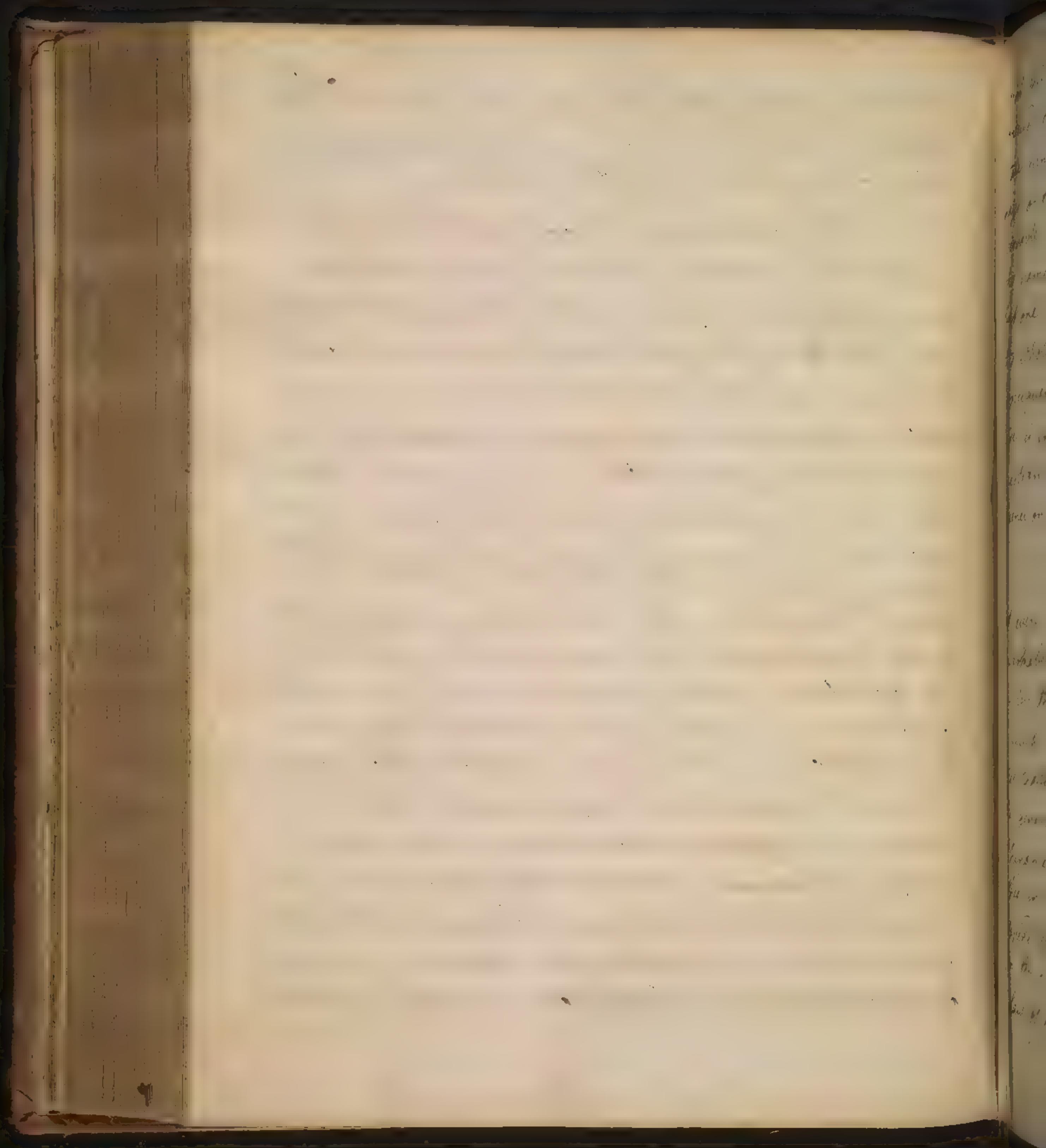


150

correspondent to facts. We shall then have a <sup>long</sup> discussion, which will consist of several steps. Now the union of the whole will be the Conclusion.

Fever are most obviously of two kinds, Intermittent and Continued. Thus Physicians have at all times distinguished them. Intermittent in the strictest sense are those fevers that consist of a number of repeated Paroxysms separated by Intervals more or less of absolute Interruption or Apyrexia. as there is a diurnal revolution of our System, we may conclude that fever will be influenced by it. Now I infer also that Continued fevers consist of repeated paroxysms, though the hot fit continues the whole time, and there is no evident Interruption. Here, then, they are distinguished by the exacerbations that are observed in these hot fits. 99 of 100 have evident exacerbations; and the repetition of paroxysms in these is to be distinguished by the exacerbation, as the hot fit becomes more violent and remits alternately at regular periods. These exacerbations in different cases are more or less evident. Therefore Physicians, where the remission is very considerable and evident, have given the name of <sup>remittent</sup> fevers, by which they have much drawn in the meaning of Continueds. Thus they have multiplied distinctions.

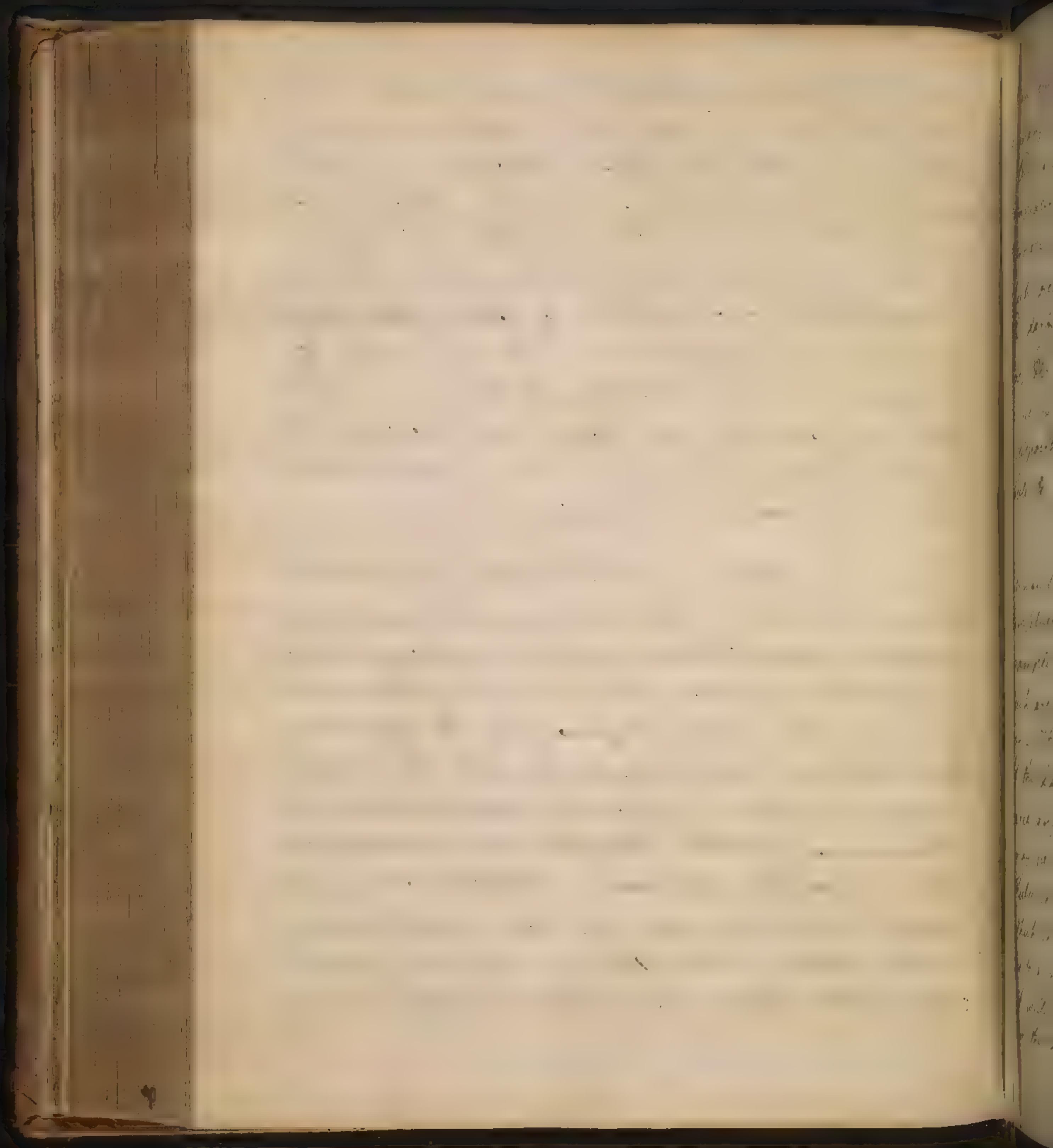
But



151.

But this has gone so far that some Physicians have conceived that there is a fever which continues in the same state running through but one Paroxysm in several days, or the whole course of the fever, without any observable remission at all - and to this they have given the name of Continuant fevers, in which they consider but one hot fit, or one reaction, as taking place through the whole course of the fever. This is a matter of consequence in our Pathology, to determine whether there is in fact any such fever - and however the question is determined, it will have a considerable influence on the doctrine I am delivering.

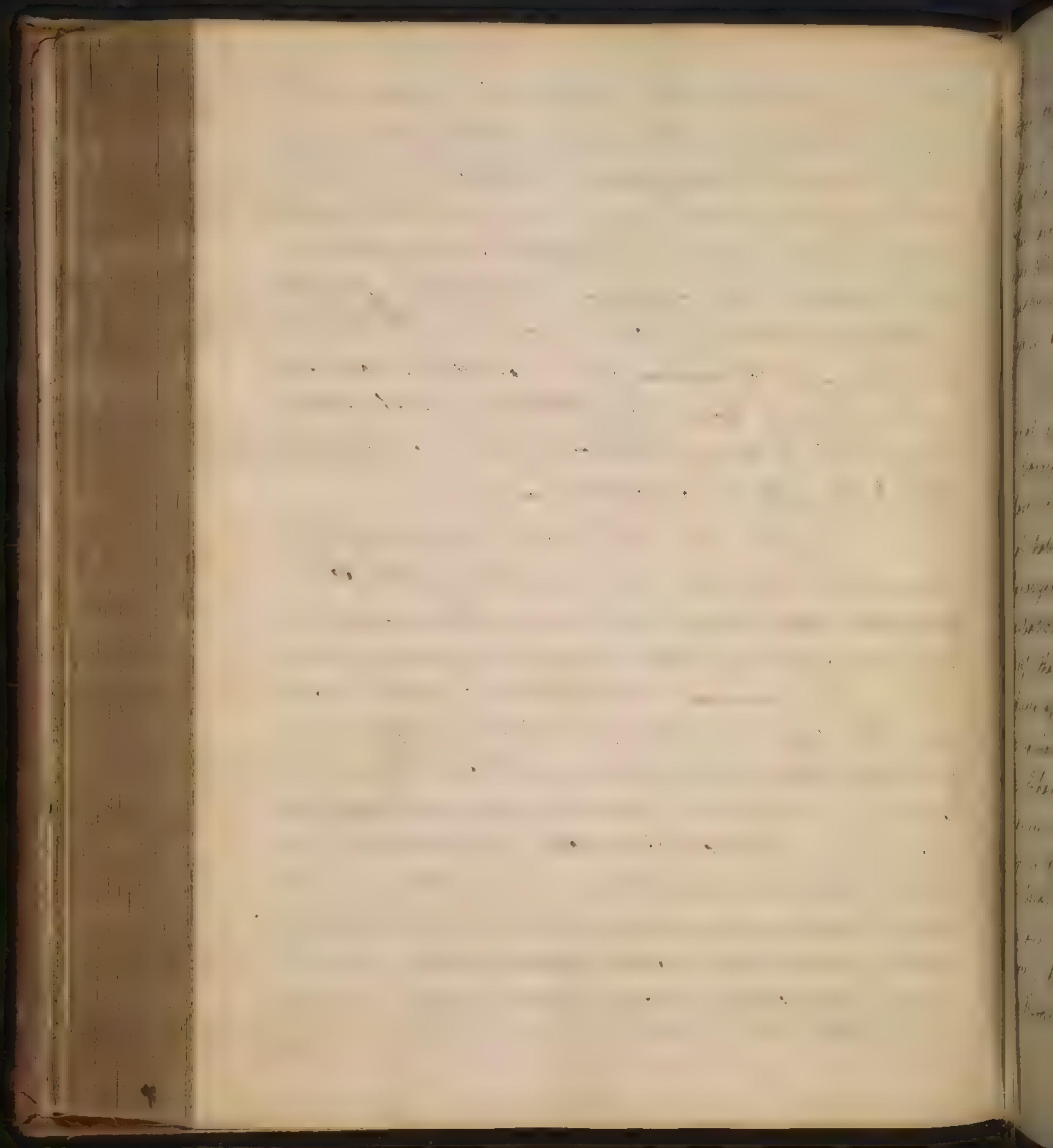
To determine this question it is to be observed that every Intermittent fever, or a continued, that has remarkable exacerbations, finishes a paroxysm always in less than 24 hours. Now I do not say that we know so much of the nature of fevers and the operation of their causes, as to give a reason for this. But I imagine the general causes of fever have little share in this phenomenon of this Paroxysms being always finished in less than 24 hours. It does not seem to depend so much on the operation of the causes as on the nature of the Economy itself, or a general law of the system, by which it is disposed to certain



152.

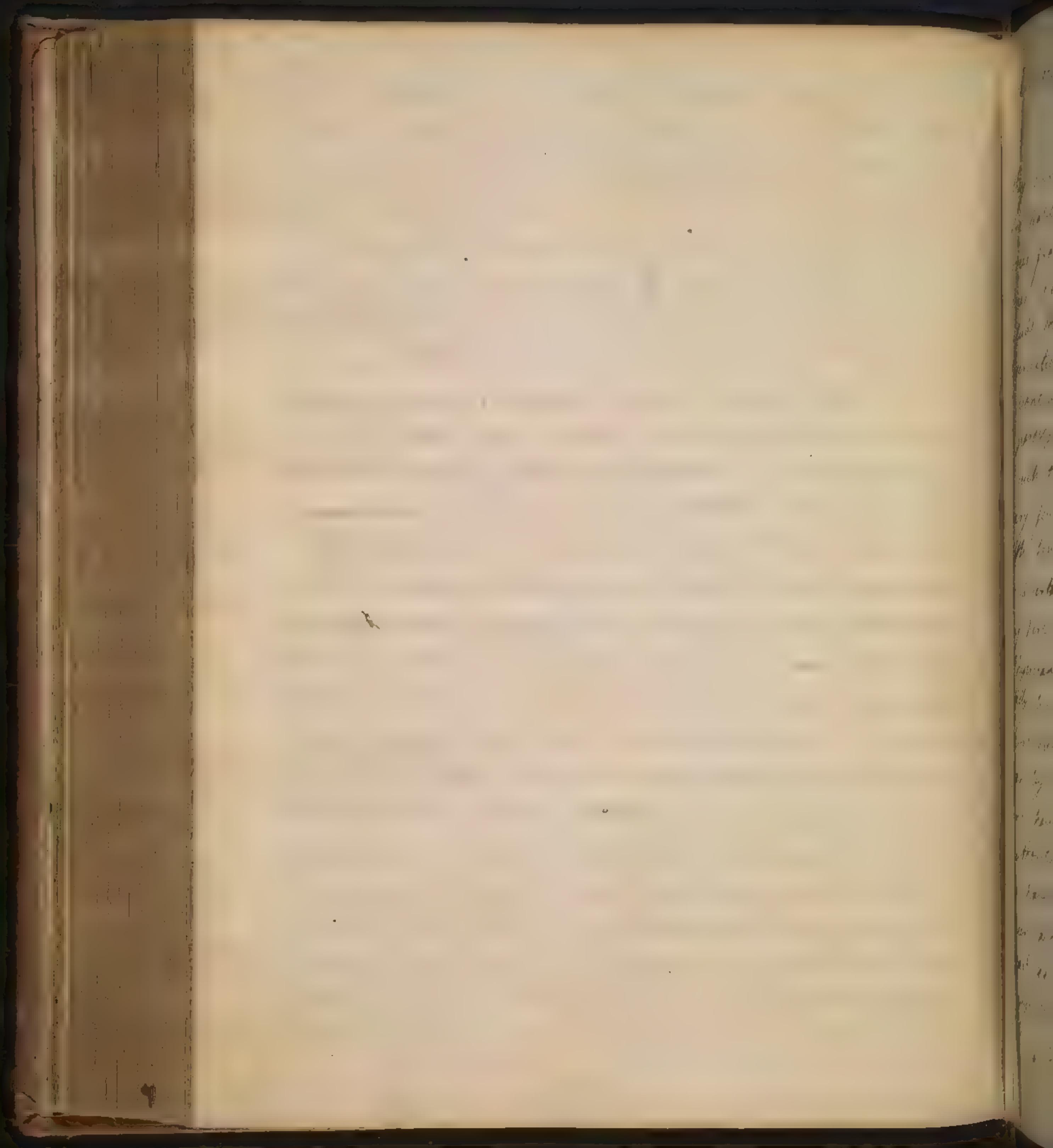
ertain diurnal Revolutions - Of diurnal Revolutions we  
see many Examples in the System - And besides we should  
be O<sup>ff</sup>, a priori, to expect such Revolutions, from con-  
templating the Causes -; for if we consider the constant  
alternate appearance and disappearance of the Sun,  
which occasions also a diurnal alternation of light  
and darkness, heat and cold - that too of the noon,  
Stars, &c, and the regular return of all our daily actions,  
we see sufficient Cause for establishing such a law  
or disposition to diurnal Revolutions, in a system so  
cible to the influence of habit as ours -

But, in the second place, we shall readily  
acknowledge this Law from considering the facts  
themselves, that are observed in our System, and are  
Examples of the diurnal revolution of the System -  
Such are the diurnal alternation of sleep and waking  
- The different states of the Pulse at different times  
of the 24 hours (which comes more to our subject; for  
scarce any revolution is more regular than that, as you  
may see by Dr Brian Robinson's Observations) - The  
Pulse is always slowest at rising in the morning,  
which is not so much owing to want of Exercise,  
as to a regular habit; for though Exercise be used  
it will still subside again before noon - Wines  
in the afternoon, at dinner time and afterwards, not  
- with



notwithstanding Exercise and all the various writings the system is upon it at this time, it falls again about 7 or 8 o'clock - Then it increases again till Midnight, or thereabouts, it rises higher than ever. This last evening I have had occasion to examine - It goes till about two in the morning, and afterwards gradually subsides again to the state of its greatest flow next in the Morning, of which I before spoke -

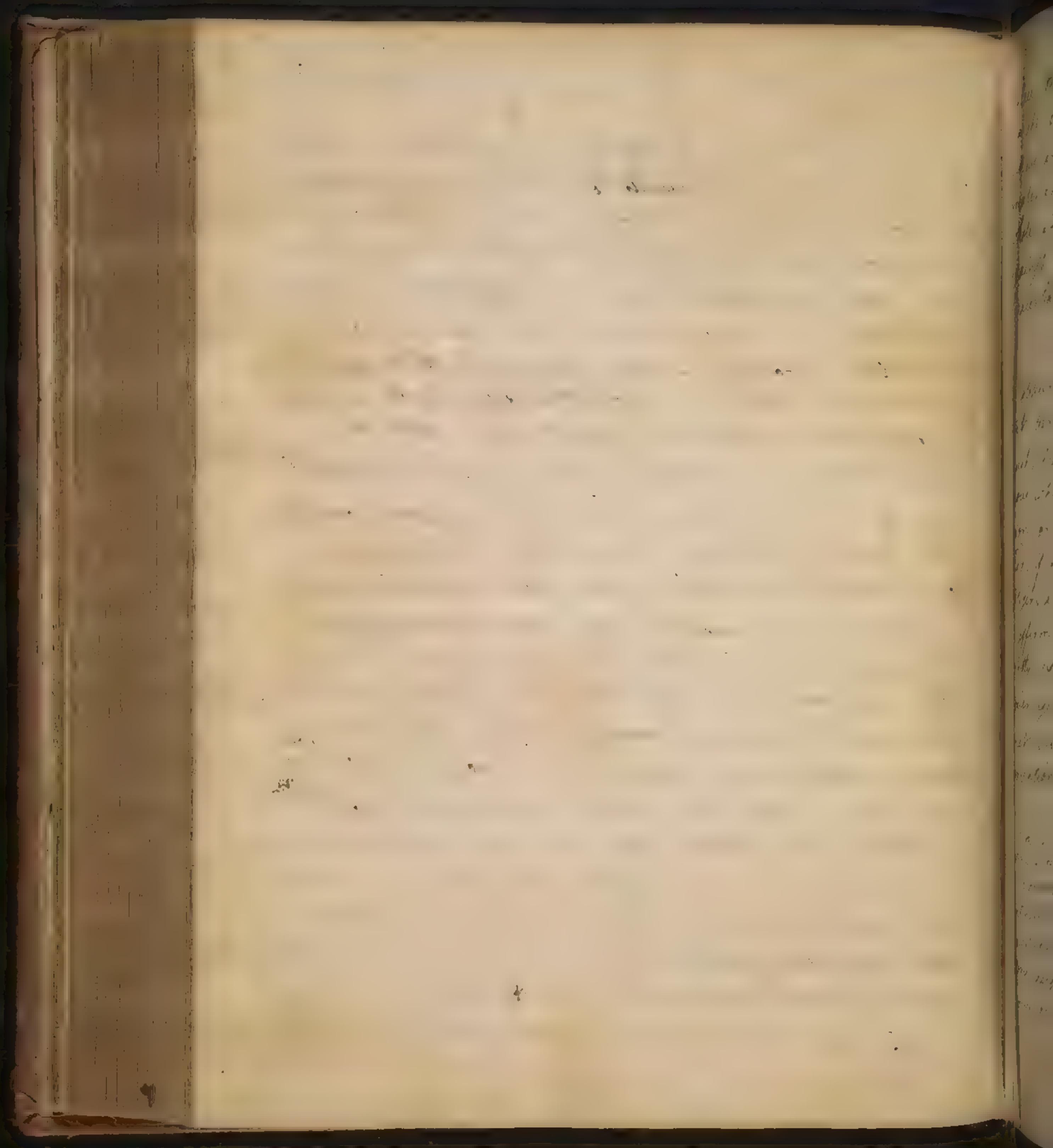
Here then is an instance of the regular diurnal revolutions of our system - and then we find it correspond to the observations of fevers - and therefore I conclude that fevers are modified by this diurnal habit of the system, and that the repetition of Paroxysms, or the regularity of the aërious or Expectorations depend more on the nature of the Economy itself, than on any thing ~~in~~ specific in the particular causes of fevers. We shall find a confirmation of the same, when we consider the ordinary progress of the changes of the form of fevers - When a Durstan changes its form gradually & continued. The first step is to have the Paroxysm lengthened out - Next it becomes a double Durstan, or has a paroxysm on one of the intermediate days which was before free - Then it is triple - and afterwards becomes a remittent, and from that a continent, in which



which there is little or no exacerbation <sup>154.</sup> We observed -

The same is the course of tertians, when they run into Continuous, &c. and fevers of all forms are liable, in the same progress, to pass by different degrees from the most distinct Paroxysms to very obscure ones - now since this is the case, I think we may conclude that it is always owing to the inaccuracy of our observations that we cannot distinguish the exacerbations of Continuous fevers, and not <sup>t</sup>o a defect of the repetition of paroxysms in reality - We say, therefore, that there is no such thing as a Continent fever (so called), but that every fever which runs out to more days than one, consists truly of diurnal Revolutions - This Conclusion is certainly a matter of fact - and to excuse my differing here, in some measure, from the Testimony of all Physicians, I observe (what I am very sorry however has really been the case) that Physicians in this have been more ruled by the authority of others, their Predecessors, than by their own Observation - I say most Physicians have in this been directed by a servile regard to authority - and therefore the numerous Testimonies against us have not so much weight as it might seem - It has been acknowledge by Physicians of all ages, that at least 99 of 100 fevers were such in which we can distinguish exacerbations every 24 hours\* - and in the mean

\* Febres dicti Continuas putidas, sive Febres non <sup>reale</sup> hominis

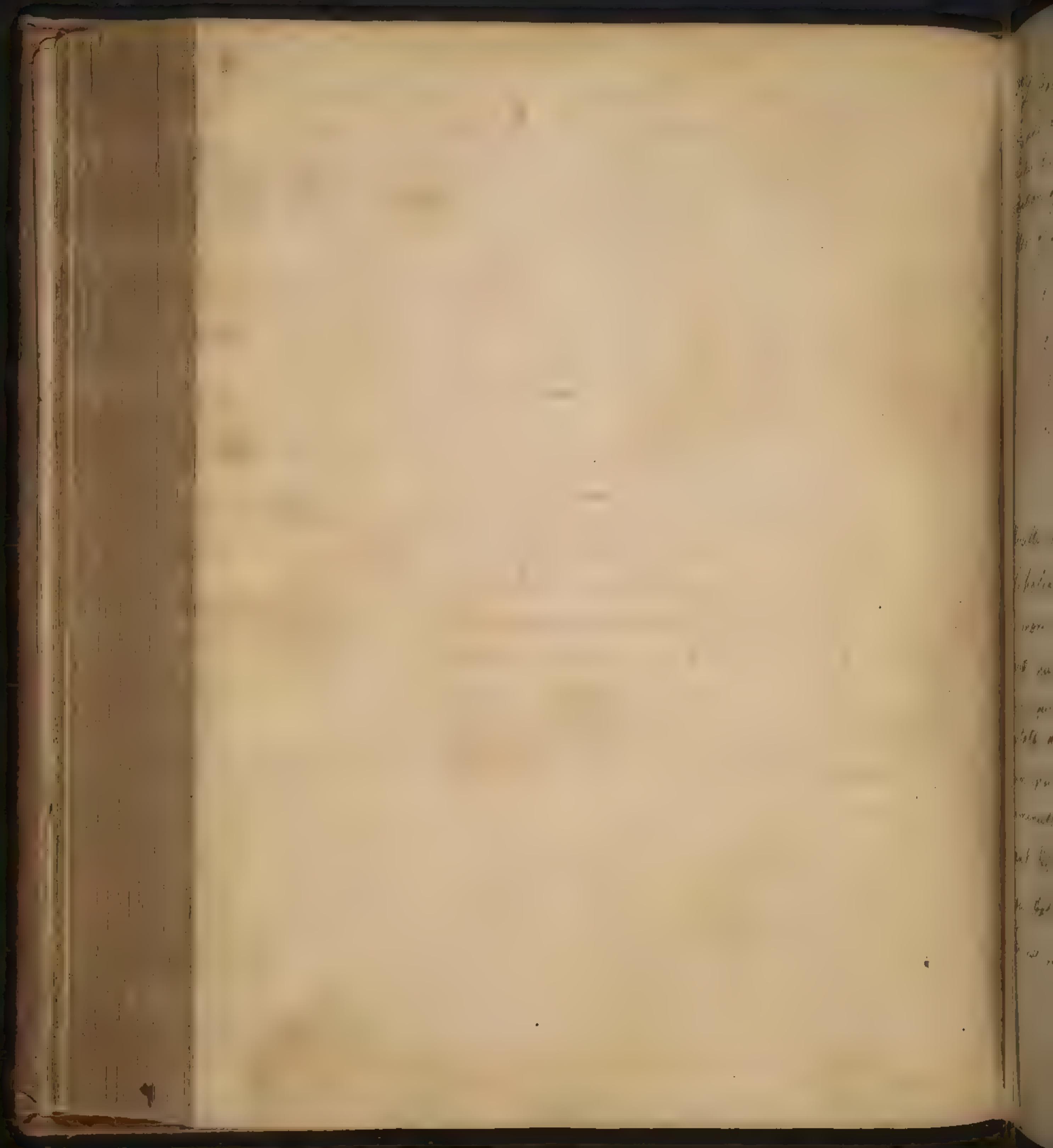


place, though there is no setting bounds to Nature  
(as she reigns over various, and to eye open to exceptions)  
yet we are daily, as we advance in knowledge, finding  
greater and greater uniformity in her works upon the  
whole, and, therefore, very fast that may be brought  
against this uniformity, respecting the periodical  
Exacerbations of fevers, may be expected of Gallay -

Thirdly, when a fever rises from distinct  
to obscure Paroxysms - When an Evident Intermittent  
tent turns gradually into a Continual - Here we  
must, I cannot but say, that the Observation is fallo-  
-cious when it begins to appear to have no remis-  
-sion or Exacerbation at all - and to all this I should  
add, if it can have any weight, the result of my own  
Observation and Experience with regard to which  
I affirm that during the course of about thirty years  
pretty extensive Travel for the most part, I have  
never yet seen a truly continual fever - I never  
met with one where I could not by attentive ob-  
-servation discern remissions and Exacerbations.\*

87

\* To this an authority may be added not less positive as Dr Haller, after  
mentioning the *laxatet* of diurnal revolutions of the system, says "Ex  
hae vespertina pulsus frequentia intelligitur quasi in omnibus febribus  
continuis, certus, perinde et auctis, sub noctem gravior sedat  
Exacerbatio, ut omnino rurquam in Europa etiam febris  
febris aliquae vere continua Tymum servat, ut nem  
remissionibus, et vespertina incertisentia intermoleatur.

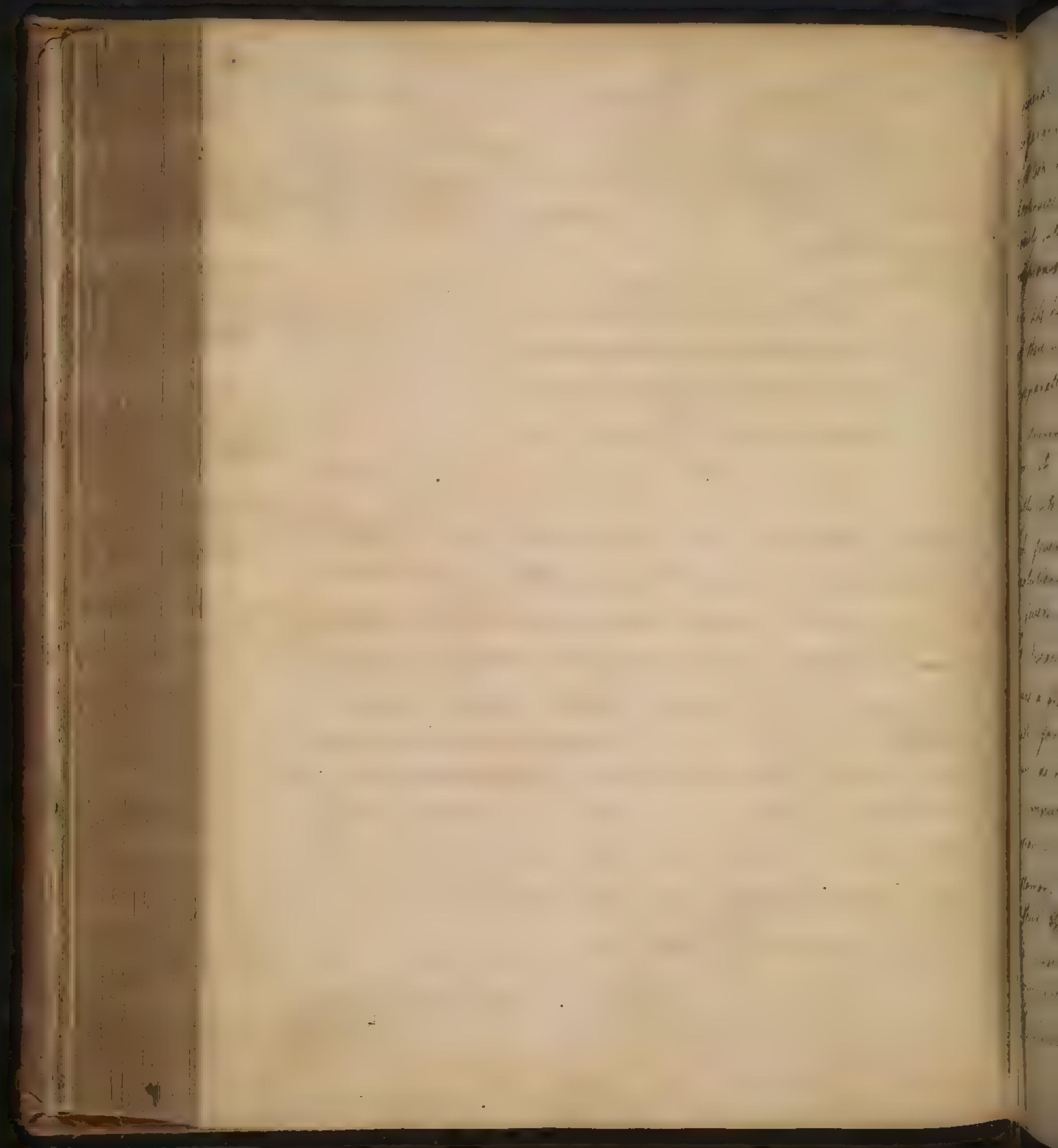


Dr Dellaen, who is a Physician much engaged in practice, and also an attentive Observer, grants the same thing. (See his Division of fevers Sect. 4. where he gives the definition of Stark, Ratione Temporis) He makes four Orders of fevers -

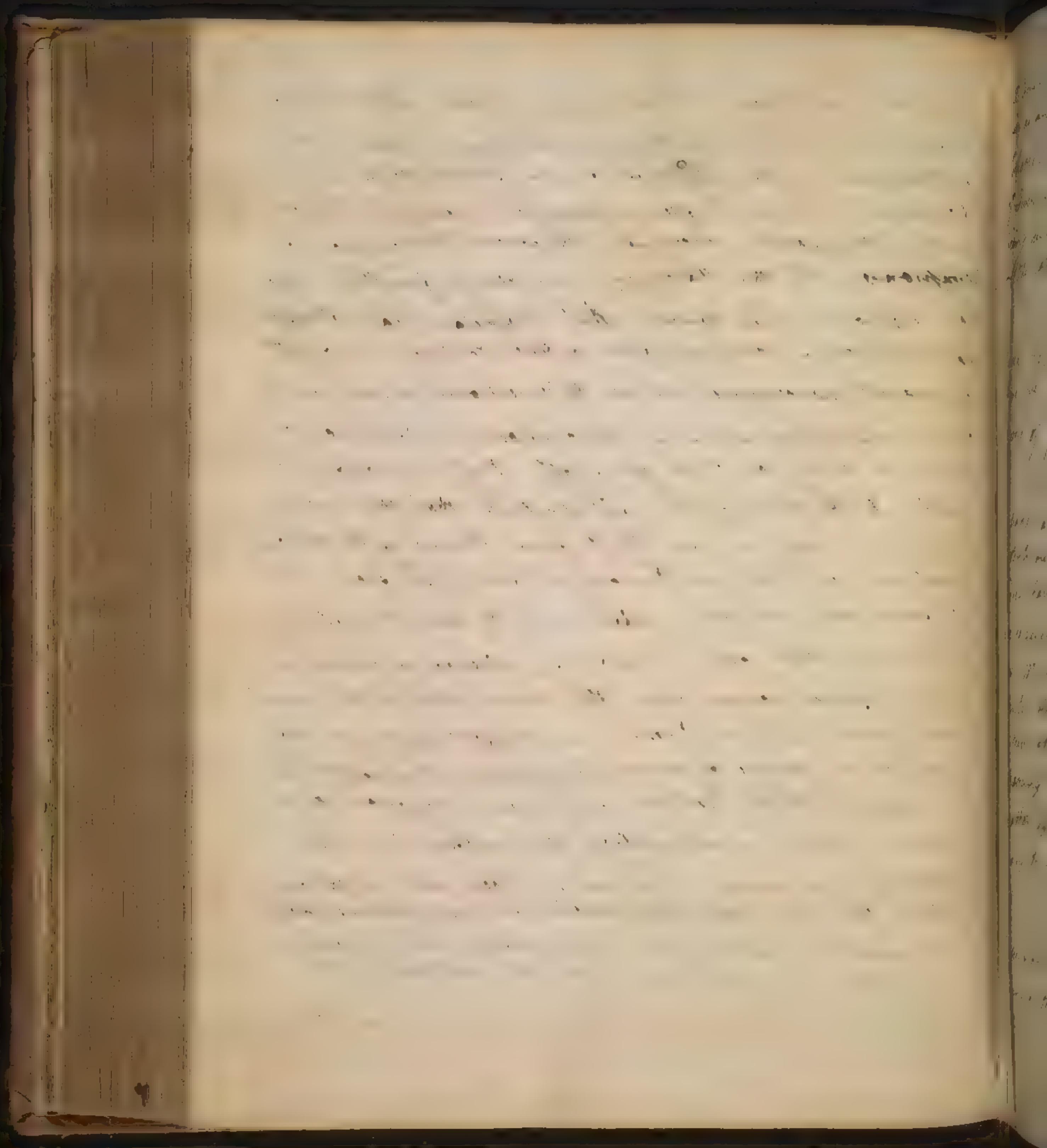
1. Continent Putrid.
2. Continent non Remittent.
3. Remittents - and
4. Intermittents.

It is visible however of the difficulty that attends the second Order, and he added a Scholion, in which he says that in reality there are more called so with propriety. "Fevere dicitur Continens putrida, nec febris non remittentes exquisitae ita diuinque queunt; cum omnes, ratione mutata atmosphaera & mutata dicta aut in mutatorum animi affectio num ipsiusque aduentanti noctis, symptomata quisquam imminuts autose plus minus remittent aut extenuant, &c. -" These are the reasons he gives to show that there are no purely Continent Fevers - and we make use of the same -

Having considered the nature of fevers in general



general, we began to take notice of their differences, and, as far as we could, to distinguish the cause of these. We first took notice of the difference between Intermittent and Continued fevers. Fevers are often distinguished manifestly and obviously into separate paroxysms by evident Intermittions or Remissions. and these Paroxysms are always finished in less than 24 hours. I said however that Physicians have thought that there was a Continual fever, or one which did not consist of separate paroxysms, but was to be reckoned as having but one Intermission or surcease throughout its whole course, from its coming on to its going off. But we enquired more strictly into the truth of this, and concluded that there was no such fever. this we were led to from Observing the diurnal Revolutions to which our Economy is liable, and from whence all fevers are necessarily determined to have Remissions and Exacerbations once in 24 hours. Also as we observe in fevers a gradual passage from the Intermittent to the Continued form, and vice versa, we therefore presume, that if we do not always discover a Remission, it is rather to be imputed to the fallacy and inaccuracy of our observation. Further, as an apology for contradicting the Testimony of so many Physicians, I took notice of the origin of their Opinions, and the fallacies and prejudices they lie under in making their Observations. and at last in confirmation of my opinion, I added the authority of Dr De Haen's Observations, and also my own. He says that all



158.

all Fevers sometime or other "plus minus intendant," by which I use as an Argument against the Continent fevers of the Schools - Upon this ground, then, I establish a distinction of Fevers into Intermittent and Continued only. The former being such as are distinctly separated into several Paroxysms - The latter obtrusely so.

I proceed to take notice of another difference of Fevers, viz., in the Intervals at which their Paroxysms occur. Here we shall enquire into the Causes of the principal forms of fevers.

Intermittents occur in the form of Duotidians, Tertiaries, and Quartans, in which at least 99 Cases of Intermittents out of 100 occur without Exception. Other forms indeed have been allowed by Physicians, but as these three are so general, we shall confine ourselves to them only. Observe how W Senac endeavours to confine the Intervals of Intermittents. He does not think it worth while to take any notice of these other forms, and is even for neglecting the Duotidian, choosing to refer it to the Tertiary - But here I do not altogether agree with him. Before we proceed it is necessary to give some Precision to our Terms.

By Interval I mean that Space of time which passes from the beginning of one Paroxysm to the beginning of the succeeding one - and

By Intermission the time which intervenes

between

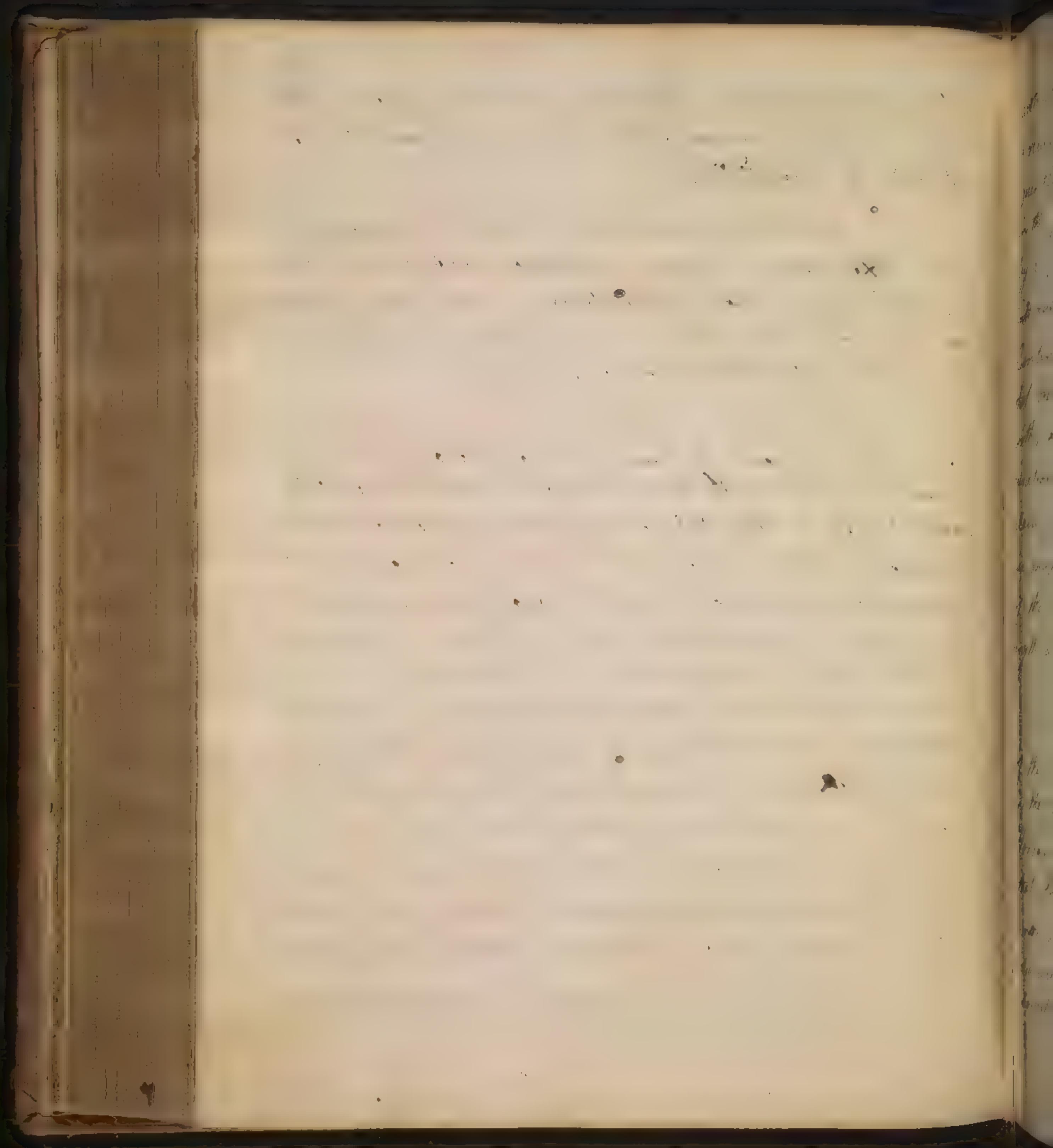


between the end of one Paroxysm and the beginning of the next. Thus the Interval of the Quartan is 72 hours, the Tertian 48, and the Quarten <sup>24</sup> hours.

Now it is to be observed that the paroxysms of the Quartan is always shorter than that of the Tertian, and the Tertian than the Quotidian: from whence it appears that the shorter the Paroxysm is, the longer is the Interval, and consequently the Antesepcison also.

This suggests what is, perhaps, an important Conclusion, viz., that the recurrence of Paroxysms is universally connected with their duration - and therefore the particular form they take on, of Tertian, Quartan, or Quotidian, which we have been speaking of, may be supposed to depend on the duration of the Paroxysm once formed - the longer Intervals being connected therewith, and dependant on the shorter Paroxysms - and vice versa. This conclusion throws much light upon the difference of Intermittents and Continuous; for every paroxysm that is protracted to 18 hours or longer, must from hence have a recurrence at the period of 24 hours. This is a fact - and there is no instance to the contrary; for every fever whose Paroxysms last 18 hours, is universally found to recur at the period of 24 hours, that is, a Quotidian.

Now if any Quotidian has its Paroxysms

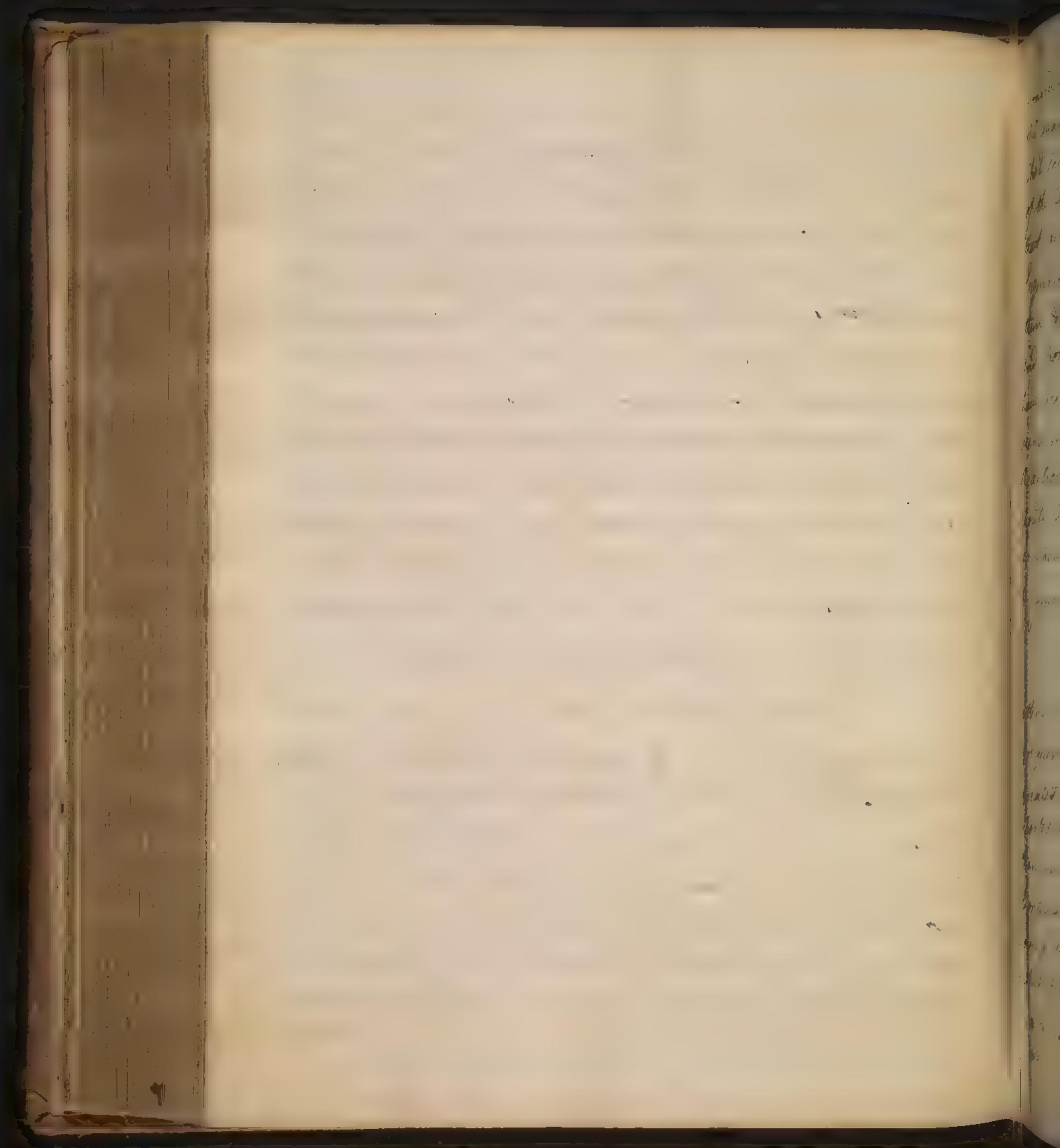


160

protracted beyond 18. or 20. hours &  $\frac{1}{4}$ , as it must have a recurrence at this period of but only four hours, and consequently can have no Intermission - It will not appear in the form of a remittent or continued fever - Thus by a prolongation of tertian Paroxysms, they are converted into Quaestans - and then again, in the same way, into Continueds - Therefore I plead in the above Conclusion, that the recurrence or Interval of Paroxysms is connected with, and therefore must be supposed to depend on, the duration of the Paroxysms themselves - And now it is plain that, to account for the different forms of fevers, we must look out for the cause of the duration of the Paroxysms - In this we can go to a certain length with great Probability and even Certainty -

But to proceed in the Inquiry - The length of the Paroxysm seems to depend on certain circumstances in the Cold fit - It has a relation to the degree of Horror and Tremor that arises; for we not only find that Intermittents have in general their horror and Tremor more considerable than Continued fevers, but it is also well known that the Quaestan (whose Paroxysm is shortest) has the horror and Tremor in the Cold fit more

con-

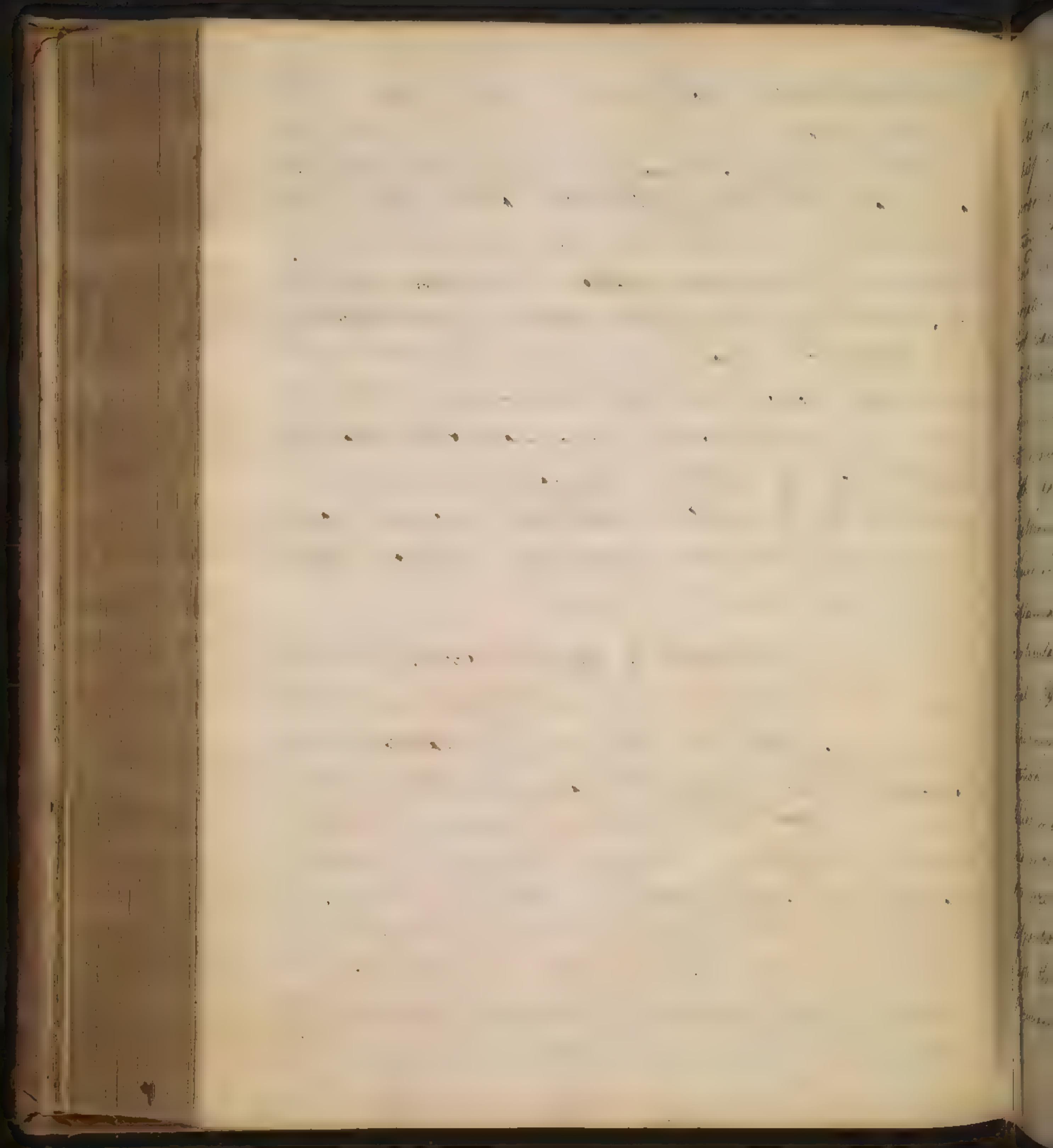


161

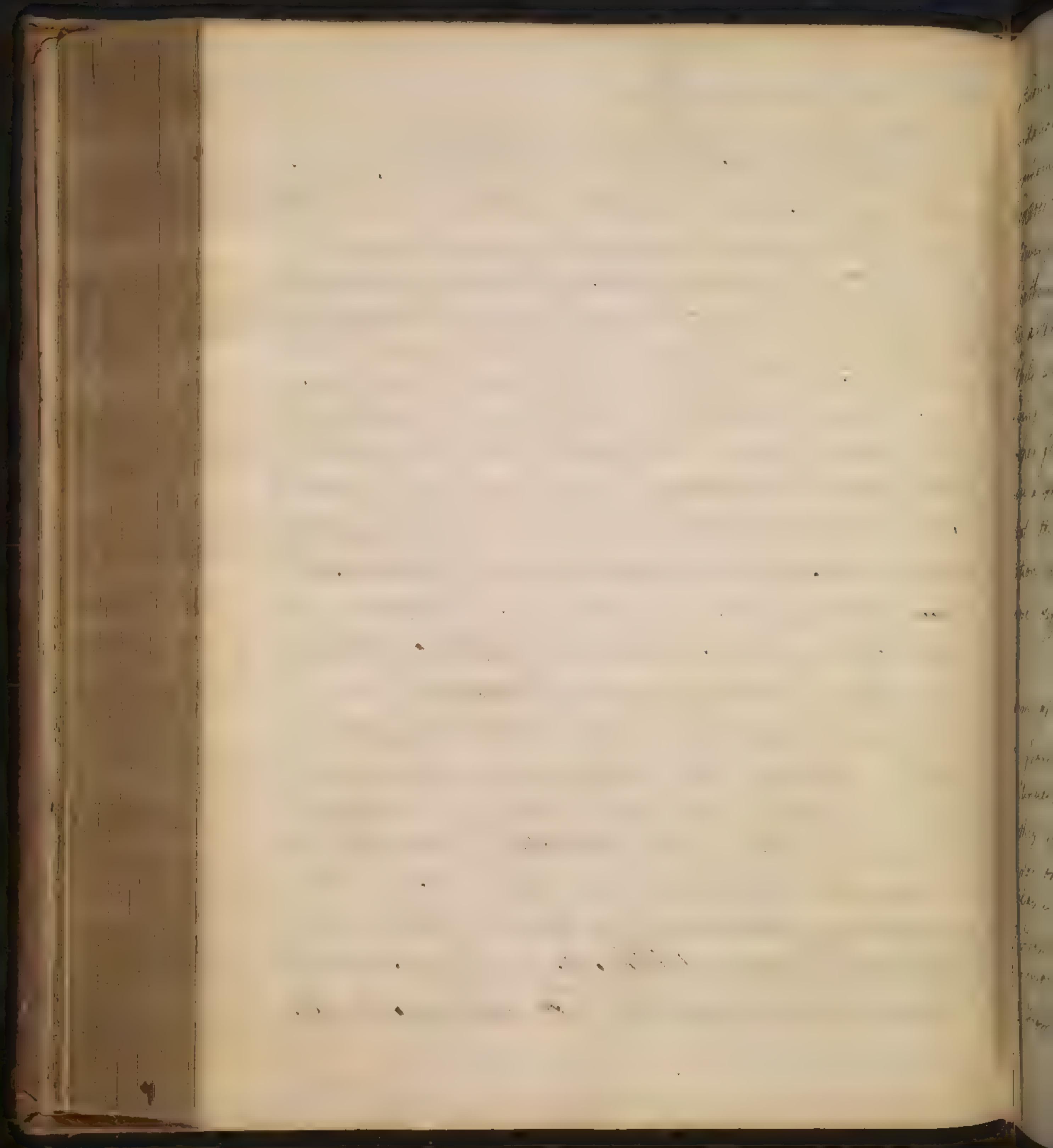
considerable than what occurs in the Quartan - and this again than the Quotidian - We conclude therefore that the duration of Paroxysms is regulated by the state of the Cold fit with respect to the Horror and Tremor that occurs in it - and now you see the propriety of inquiring into the nature of those symptoms - We find them to be symptoms of the reaction of the system: and both from I formerly said, and what I now say, we have reason to believe, that the Horror and Tremor being more considerable, are a mark of the stronger reaction of the System - Therefore, from hence, we should be led to conclude, that the Paroxysm was short -er when the Reaction was greater, 10 as from its force to give a Solution more easily -

But here a difficulty occurs - For if we attend to the hot fit only, and judge from the heat, frequency of the Pulse, &c. we find that these are greatest in the longest Paroxysms than in the shorter. i.e. that the Reaction is greater in Quotidians than in Quartans - Therefore we will say, that the continuance of the fit in Quotidians is not a much owing to the want of reaction as to something else which hinders the Solution of the Paroxysm\* - This

\* The same cause that determines the fever to Quotidian <sup>can</sup> type, determines the duration of its Paroxysms - B



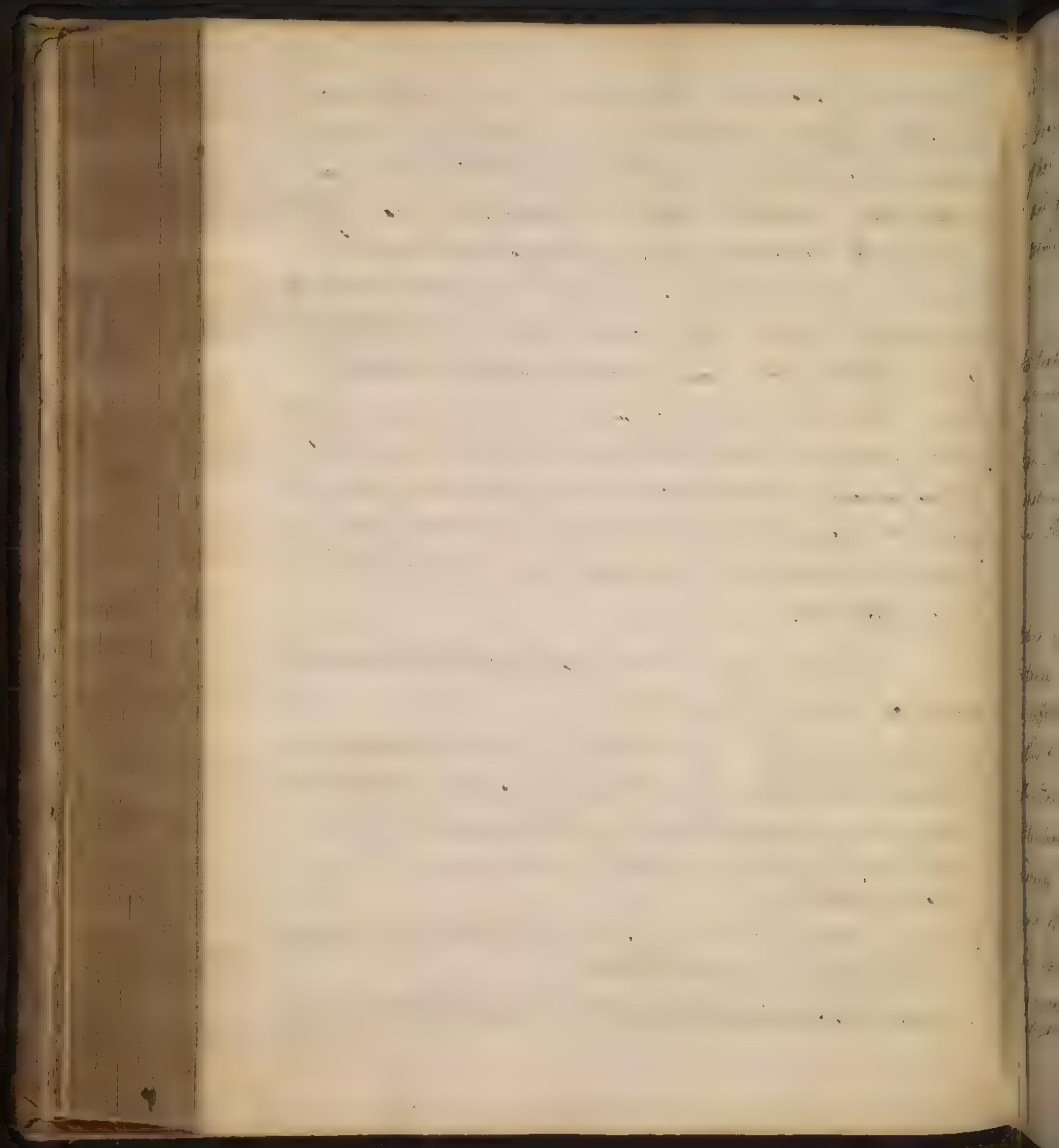
can be nothing else than the Constriction on the surface. It is the Sparm on the Extreme Sphincter that gives the chief of the Irritation to the Sclerorum, in order to produce its reaction. But the Constriction and Irritation it gives, are not always in the same proportion. and we can easily perceive that if the Constriction be greater than the Irritation it gives, the Paroxysm in that case will be longer. And if the Constriction be moderate and the Irritation considerable, a short paroxysm will be produced. But before we proceed, lest this should be reckoned Hypothetical, let us compare it with facts. This obliges me to anticipate a little the Doctrine of Inflammation. Here there is a Congestion of fluids in a part, and on this depends the Pyrexia attending Inflammation. This Congestion is an Irritation more particularly applied, and has peculiar effects on the arterial system. What I presume is, that the Tense or Tendency to Contraction in the arteries is by that Irritation increased; from whence they embrace the fluids more closely. They will contract more strongly, and more strongly break dilatation. Upon the whole the size of the arteries is diminished. Now in this disposition of the arterial system I presume consists the Diathesis Phlogistica so famous among Physicians. This I conclude from the hardness of the pulse attending



attending it, from the Causes of it, which are various Irritations of the arterial system; and from its Care depending on Remedies that diminish the Tone, as Venesection, which is the most powerful means of reviving the arterial system. Therefore under this Diathermic Phlogistic, or increased Contractility of the arterial system, the Constriction of the Extremities will be more considerable; so that if the Causes giving Diathermic Phlogistica mix in any measure with proper fever, the increased Tone therefore arising will give a greater Constriction in the fibrile Spasm, so that the Constriction will be greater than the Irritation it gives, and consequently the Solution more difficult.

That this is the Cause of the Continued form of fevers, I conclude

1. from the fevers of Phlegmatis being always continued; for though by the force of a diurnal Habit they may nobly admit of Remissions, these are not considerable; and they do not intermit in any case whatever.
2. From the Conversion of Intermittents into Continued fevers from stimuli applied -
3. From Continued fevers being the production of <sup>cold</sup>



164

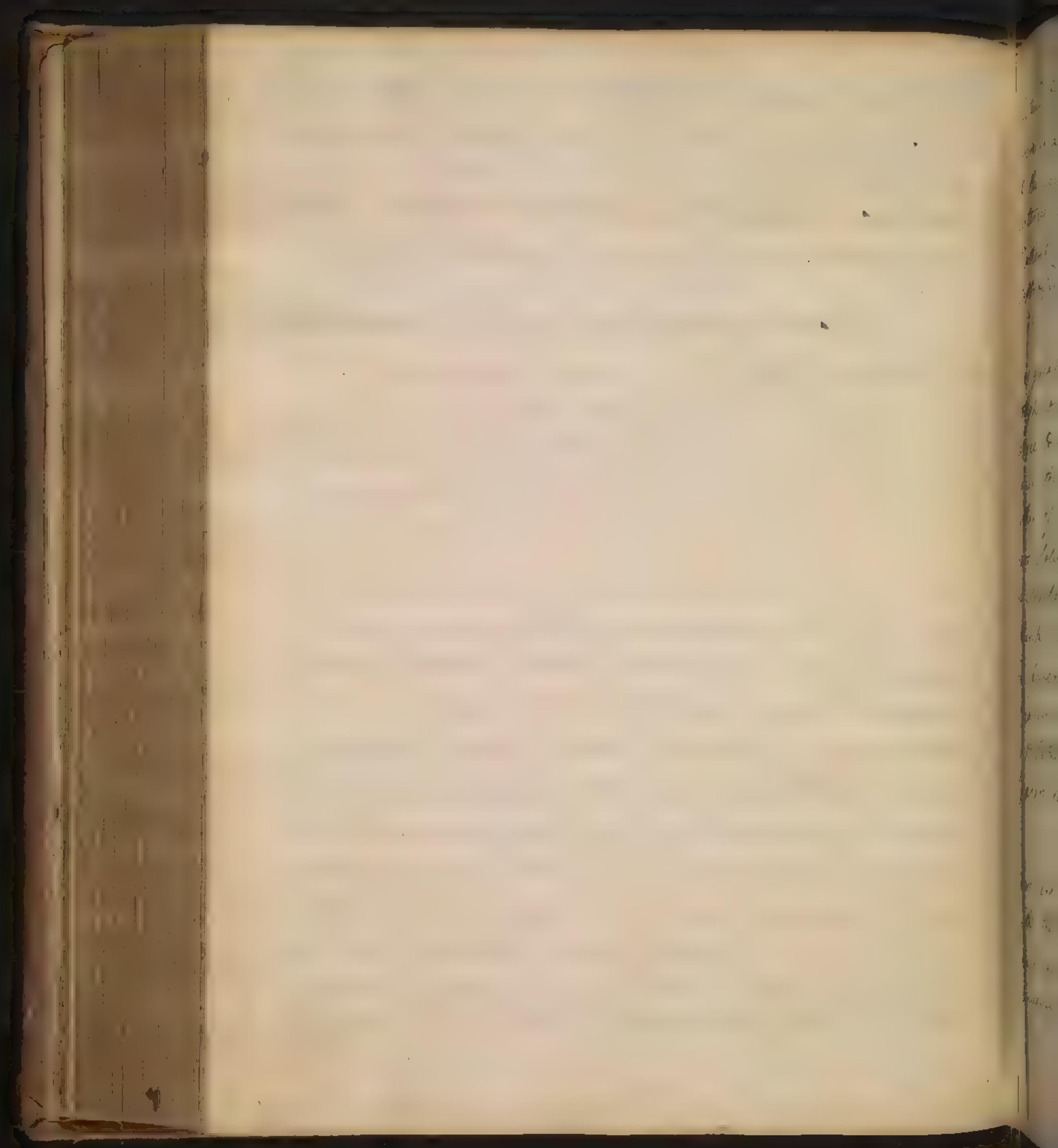
Cold Climate, where the Inflammatory Diathesis reigns.

4. From Intermittents being more specially the natives of hot climates - and
5. and from Blood-letting not being admissible in Intermittents, but very generally in continued fevers -

From these Arguments, then, we concluded that, the Diathermic Phlogista is a Cause of Fever put on a continued form, because it gives such a Spasm, wherein the Irritation will be often proportion than the Constriction - But though this is the general state of the Case, I shall now give you my notions of a fever of the continued kind, where that Case is different.

I said we have reason to believe that a debilitating power is commonly concerned as a Cause in every instance of fever - But the Debility produced is different in different Cases - Sometimes it is so great as immediately to extinguish Life, without producing fever at all - Thus in Cases of high Contagion, in time of a Pestilential fever prevailing, some persons are often seized suddenly and drop down dead, without having any appearance of fever at all - Others have a slight Cold and horror, but nevertheless die without the formation of a proper hot fit - There are some Cases wherein a hot fit succeeds the horror and Cold, but it does not

Extend

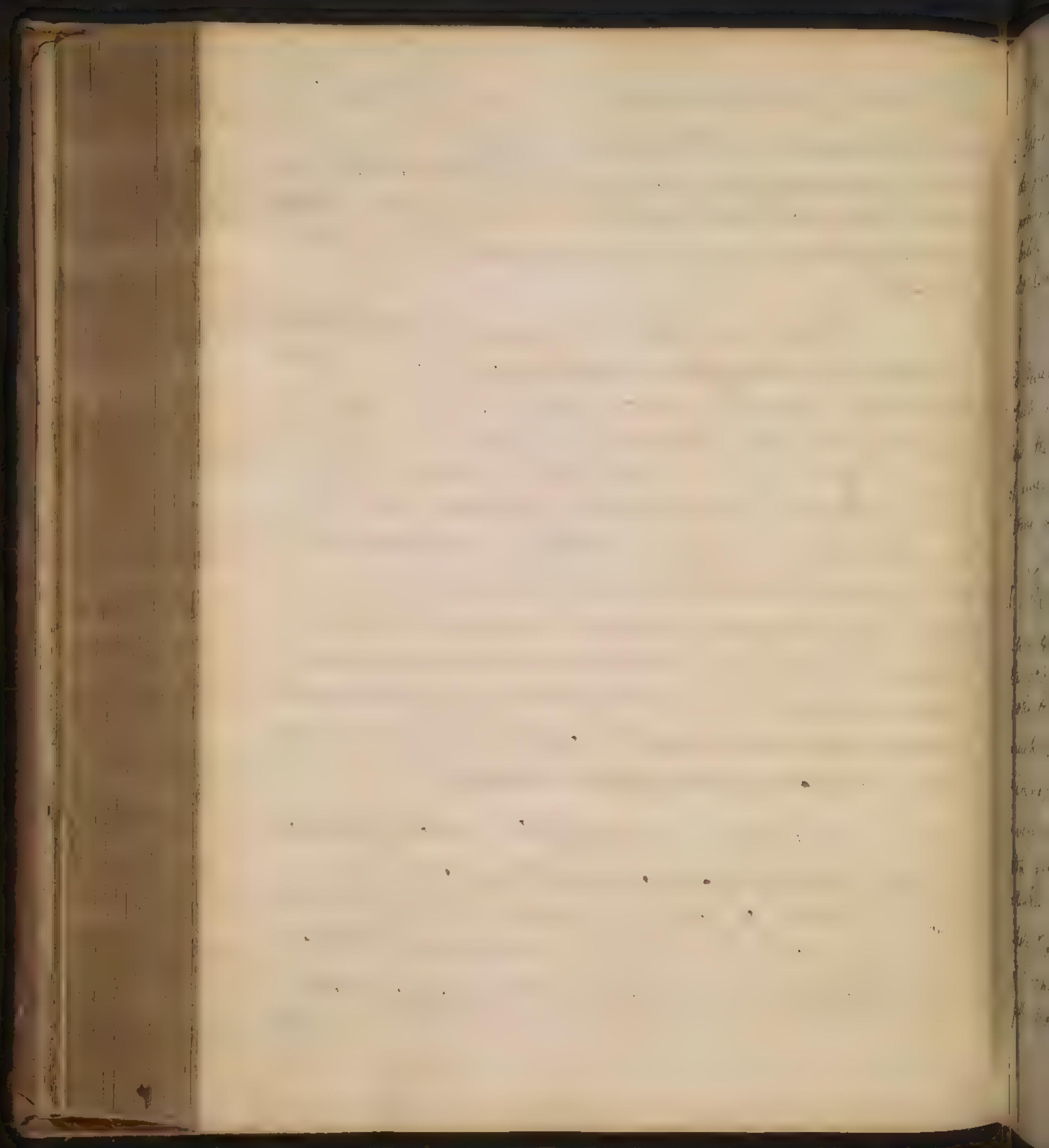


165.

extend to the Extremities, then remaining cold. Here, then, there is a Reaction of the Brain produced, but it extends to the neighbouring parts only, and affects the heart and large arteries, but not so as to reach the Extremities - and the Patient at last sinks, and in this mis'd State Life is destroyed -

In this Case, then, I presume that the Debility is so great as to take off the Irritability of the brain - and though some Irritation takes place, it is not in sufficient degree to extend its Influence to the Extremities - and from hence the fever remains continued - Therefore from either of these two Causes, viz. Escape of Spasm, which hinders Solution; or Escape of Debility, so as to take off the Irritability of the Brain in great measure, depends, I think, the protraction of every Paroxysm in Continued fevers - In pure Intermittents, both debility and Spasm take place; but the Debility is not so great as to take off the Irritability of the Brain - nor is the Spasm so strong as to resist the Reaction.

But we must proceed to a nearer distinction - There are two Causes of Continued Fever, one wherein with the Causes of fever in general, a Phlogistic Disease also occurs, and in this consequently the Continuance or duration depends upon the Escape of Spasm: and



and this Physicians call an Inflammatory fever - 166.

2. There is another case where the Debility, which is the fundamental cause, is in so great a degree as to prevent a proper Reaction, by taking off the irritability of the brain - Here the duration is owing to the excess of debility, and is called a Nervous fever.

This is the principal distinction of Continue'd fevers now generally established over Europe, and into which Physicians are getting more and more constantly. Now then we must see how far these two causes of fever take place, and what are the obvious symptoms which distinguish them.

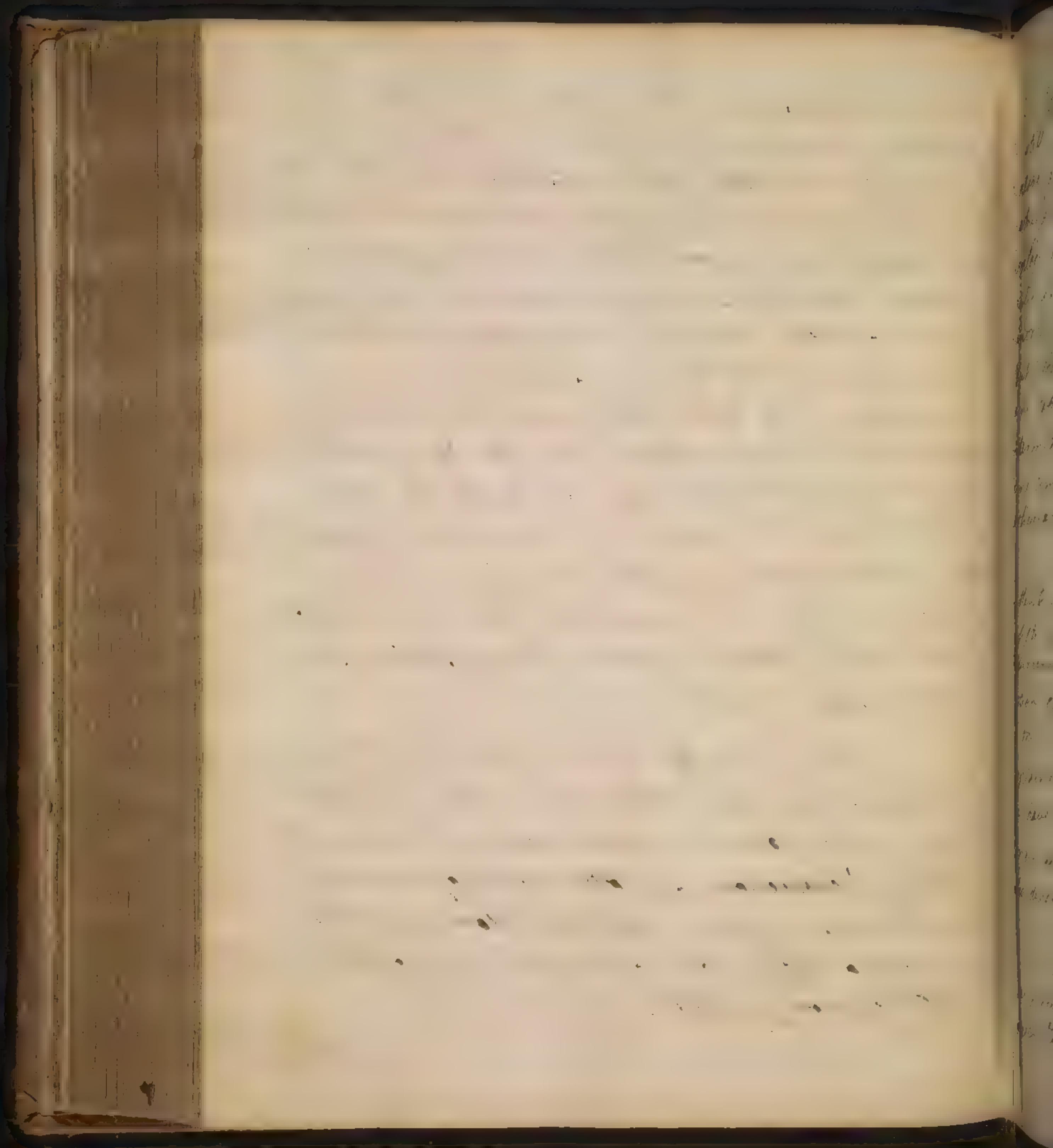
1. The Synoqua, or Inflammatory fever, is peculiar to Cold climates and seasons - It attacks the robust and sanguine, and such as are predisposed to Hemorrhagy - It comes on suddenly without much debility or languor, Horror or Tremor, or sickness and Vomiting in the cold fit - and this is very short - It never arises from Contagion, often from Cold - The hot fit is very considerable, attended with great heat, equally diffused over the whole Body; a fullness of the face, and appearance of Propensity to sweat - at this time the Pulse is full, strong and quick - a Throbbing is felt in the



Temples, accompanied with headache, and frequently Delirium - The Breathing is frequent with some degree of anxiety, but neither full nor laborious - Sometimes the small of the Back, and joints of the Limbs are painful - The appetite is not quite lost - Seldom any degree of Nausea - The Thirst is very considerable, and arises from a sense of heat - The Urine is high coloured, without sediment - and the Disease commonly terminates in seven days - The Exacerbations and Remissions are obscure and inconsiderable - and the Termination is commonly by Hemorrhagy or Sweat, the Urine at the same time acquiring a sediment - These then are the marks of Inflammatory fever, and as yet they are nowhere well ennumerated - but best in Dr Hoffmann Vol. 2. Pag. 105. under the title of *Febris Sanguinea. grossis Synoeca.*

We suppose this fever to depend on a strong Spasm, arising from Phlogistic Diathesis, while the Energy of the Brain is highly excited - It is principally cured by Venesection, and other means of relaxing the arterial system - and the blood drawn has generally a bulky coat covering it - But of this we shall say more hereafter.

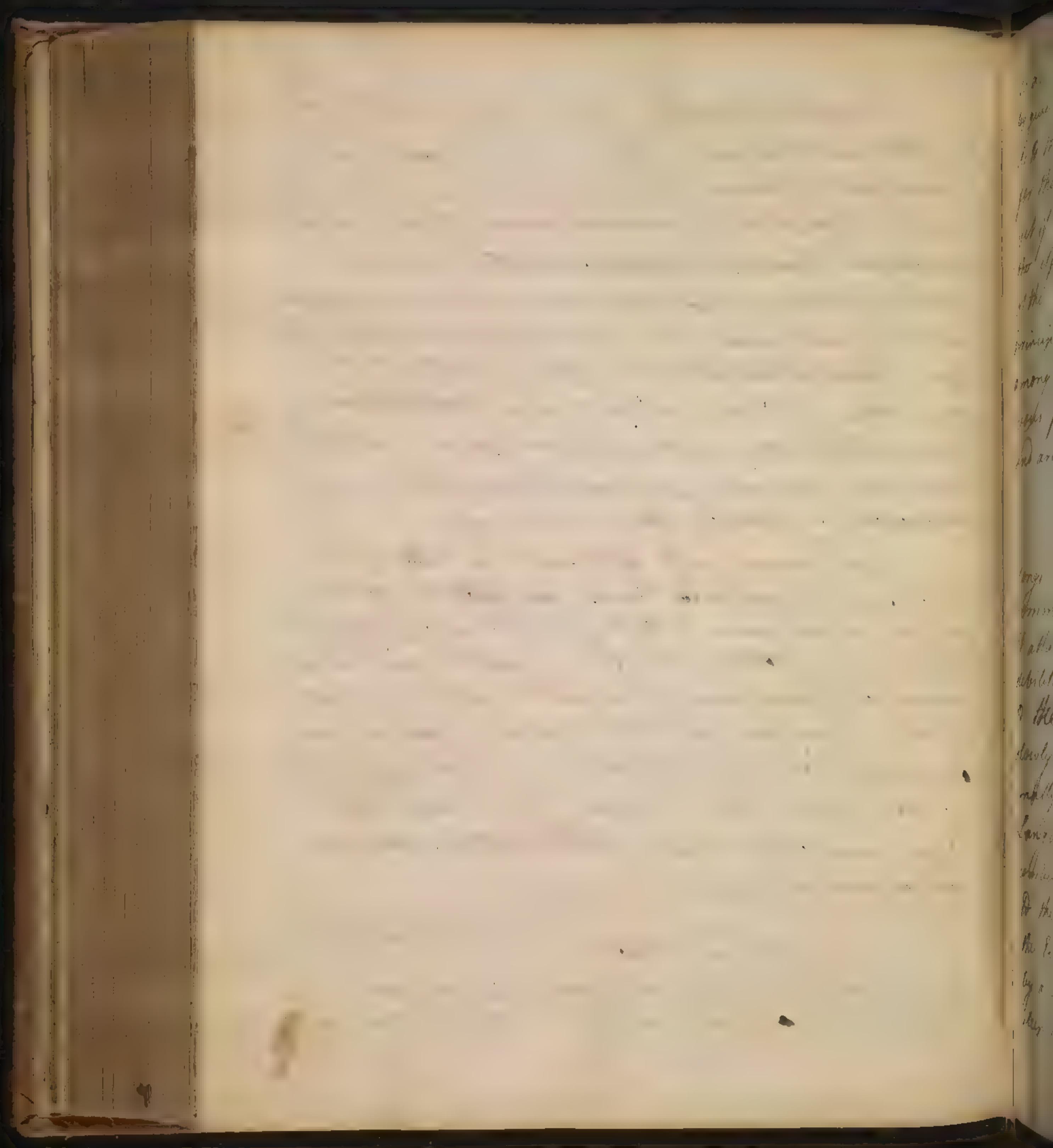
Gen



General Principles, however general they may be, still have their use in Physic. They at least serve to explode false Theories. Thus Hoffmann's Conclusion in making Spasm the Proximate Cause of fever, might explode the Doctrine of morbid matter, which had prevailed and been reckoned the Cause of fever for several hundred years before. The same might have been the effect (though it was not) with regard to Sertor, of the pains taken by Van Swieten to show that the Cause of Intermittents was in the Nervous System. At the same time, however, unless these Conclusions apply to particulars in Practice, they are not so useful.

We began with distinguishing between Intermittent and Continued Fevers, the difference of which consists in the more or less frequent and uninterpolated Recurrence of Paroxysm; for we found that the duration of Paroxysm is connected with the length of the Interval or Intermision. Now, as we have explained how Spasm is the cause of the paroxysm, we have shewn how it comes to be a cause of its longer duration. But in other Instances the same also depends on a Degree of debility.

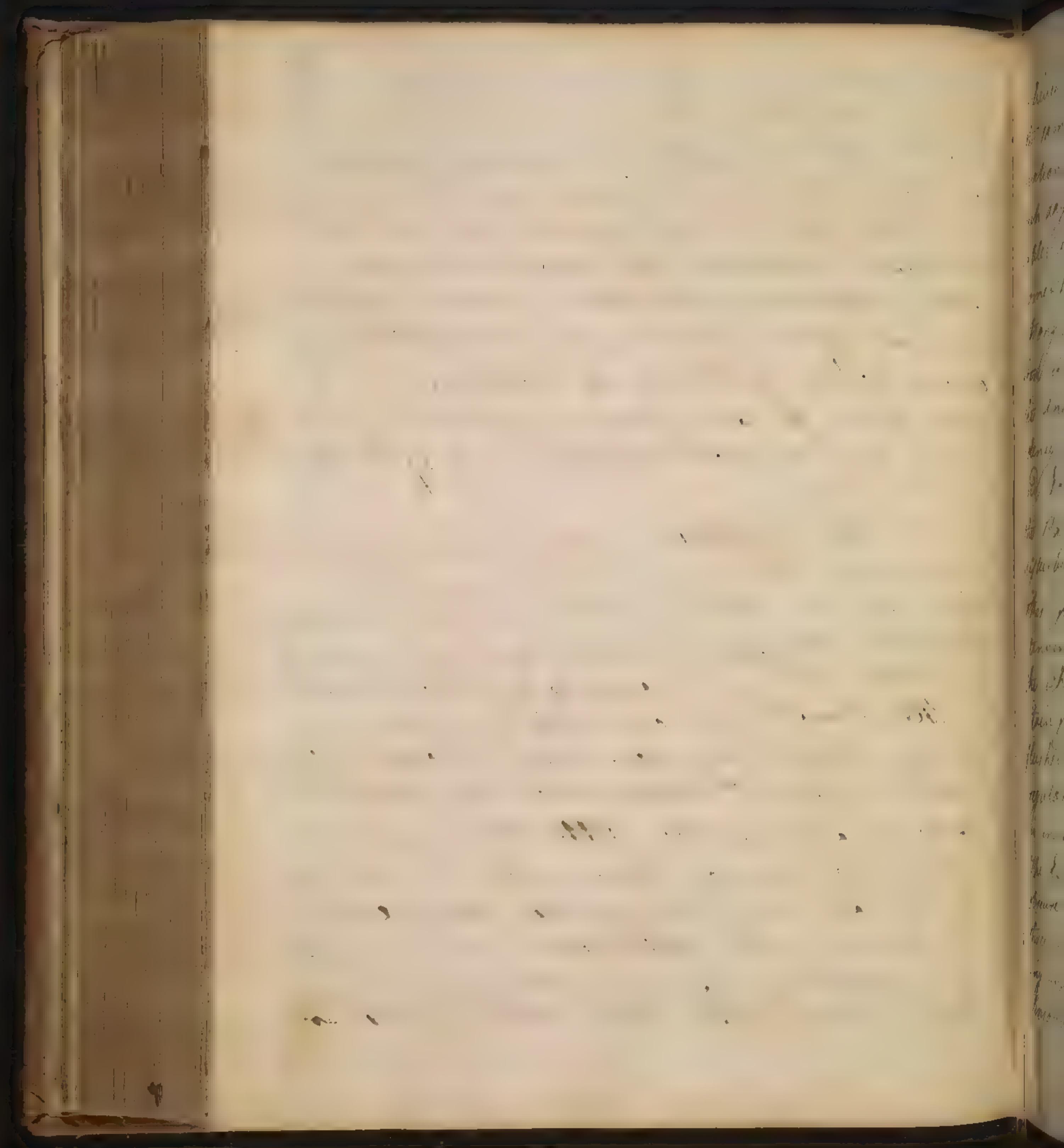
as to the first Cases we concluded that there was present a Phlogistic diathesis, which gave a greater Tone or Contractility to the Arteries, so as



169.

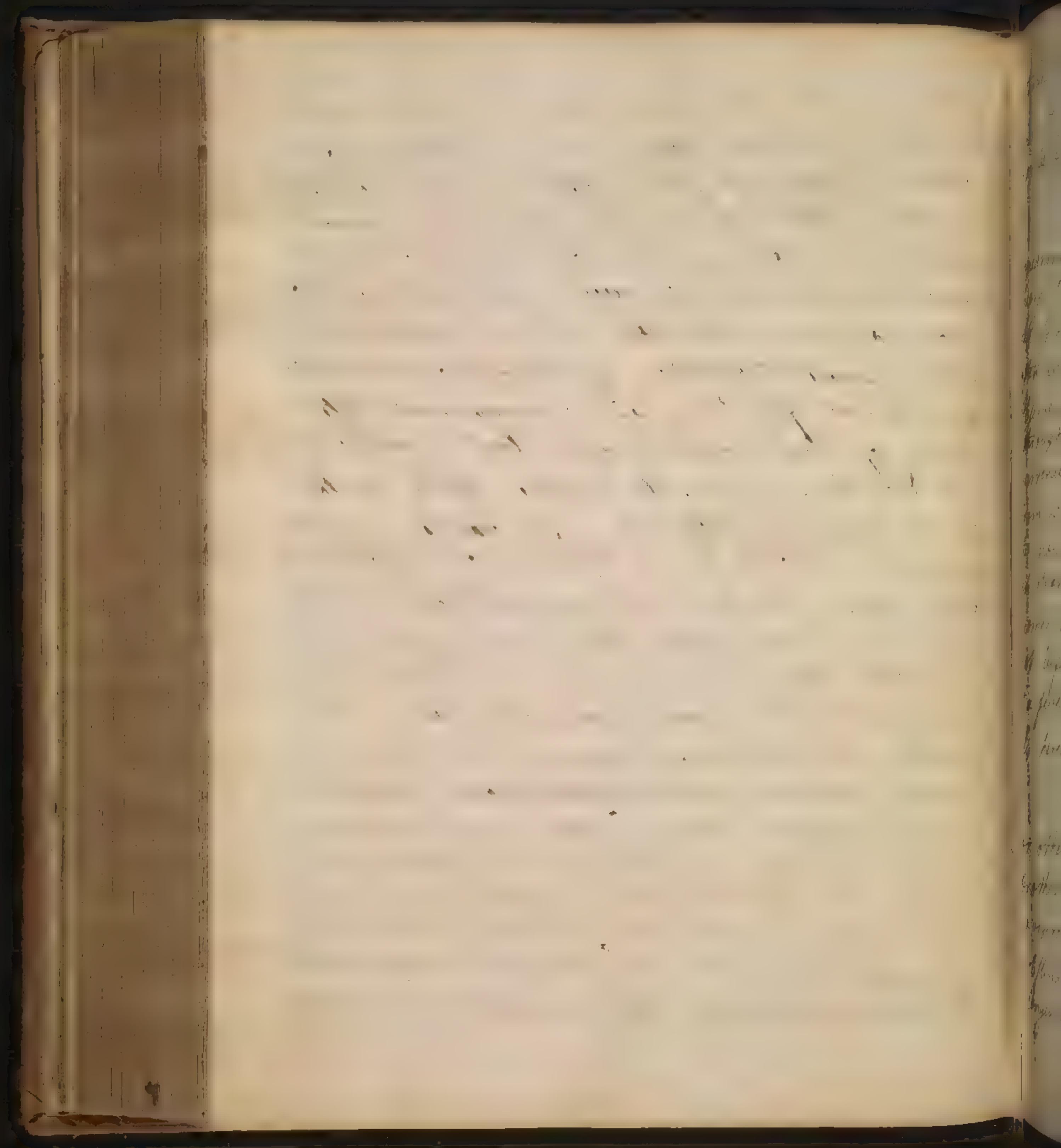
so as to occasion a more obstinate Spasm, and thereby give a longer Paroxysm - This agrees with facts - As the other Supposition, it is also very admissible; for though there be nothing peculiar in the Spasms, yet if the Debility be very great, it will also have the effect to protract the Paroxysm, by taking of the irritability of the brain - In this consists the principal difference commonly noted by Physicians among fevers - viz, between the Inflammatory and Nervous fever - We have already considered the former, and are now to relate the Phenomena of the other,

*The Syphus, or Nervous Fever.* - This belongs to warm climates and warm seasons, and can commonly be observed to have arisen from Contagion. It attacks the weak and such as have been exposed to debilitating causes, and particularly at the same time as the Operation of cold - The fever comes on slowly, and for some days before it appears formally, affects the person with loss of appetite, Languor and Lazitude - With these is commonly combined a sense of cold, or rather a sensibility to the cold air - This specially attacks towards the Evening, with slight shiver, which is succeeded by a slight degree of heat, with uneasy and restless sleep in the night - In the morning there is



170.

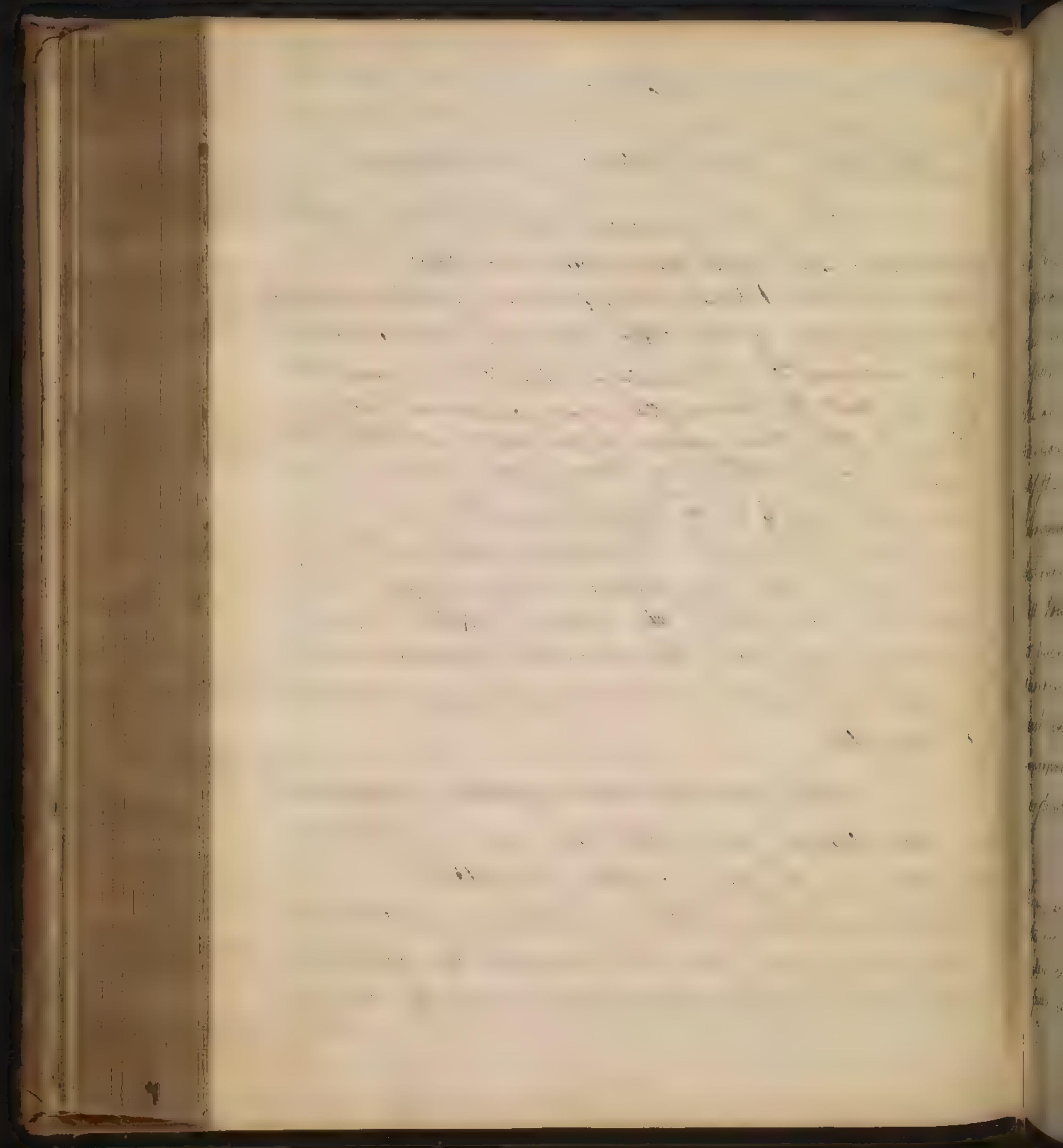
reduced in the Morning; but in the Evening  
the same symptoms again occur, with an aggra-  
vation of the hot fit - After one, two, or three  
such days as these, the hot fit becomes more remark-  
able and constant, with a moderate heat, and a pulse  
somewhat, but not very, quick, but neither full or  
strong, and much dry hard. With these appearances  
there is great Prostration of Strength, or debility of  
the animal functions, and a remarkable depriv-  
ation of Mind - appetite quite lost - Nausea arises,  
and Vomiting frequently succeeds. With all these  
the Patient gets little sleep, and that too is much  
disturbed - Shortly too a Delirium or Typhomania  
takes place - The heat is not great, and often not ex-  
tending to the Extremities, but unequal over  
the whole body; sometimes very considerable in cer-  
tain parts. The face is generally pale - Seldom  
flushed, at least in any degree. The Belly is ir-  
regular, sometimes bound, sometimes loose - The Urine  
is in its natural state, or pale without sediment -  
The Expectorations at first so evident become more  
obscure - and thus the fever is lengthened out to two or  
three weeks, or more, and terminates at last without  
any visible evacuation - The Phenomena shew that the  
Limonium is principally affected, as appears from its dis-  
turbed



disturbed Functions in the Delirium - Tremor Gaspholo-  
-gia - Typhomania, &c. and I think all the symptoms  
may be explained from a Debility of the Sensorium.

Now if Fevers were tolerable steady in their  
appearances, we should have much less difficulty in this  
Theory - But the Phenomena of fevers are greatly diversified,  
the Symptoms of the Inflammatory and nervous being  
often intermixed - To explain this it is necessary to  
observe that the Circumstances do not remain the same  
through the whole course of the fever - But the Re-  
-currence or repetition of Paroxysms produces a change  
from what exists at the beginning of the fever - From  
the power of Reaction becoming greater, or the Spasm  
less strong in the repetitions of Paroxysms, it will be  
soon able to resolve the Spasm, which it could  
not before do - and this gives the natural Solution  
of a fever, of which we shall speak more particularly  
hereafter -

But sometimes the repetition of paroxysms,  
or other causes, diminishes the power of the action -  
otherwise the force of the Spasm may be reduced,  
a vigorous reaction, instead of resolving, giving more  
obstinate Spasm, so as to protract the fever to a  
longer time, and not be resolved at all - In which  
state

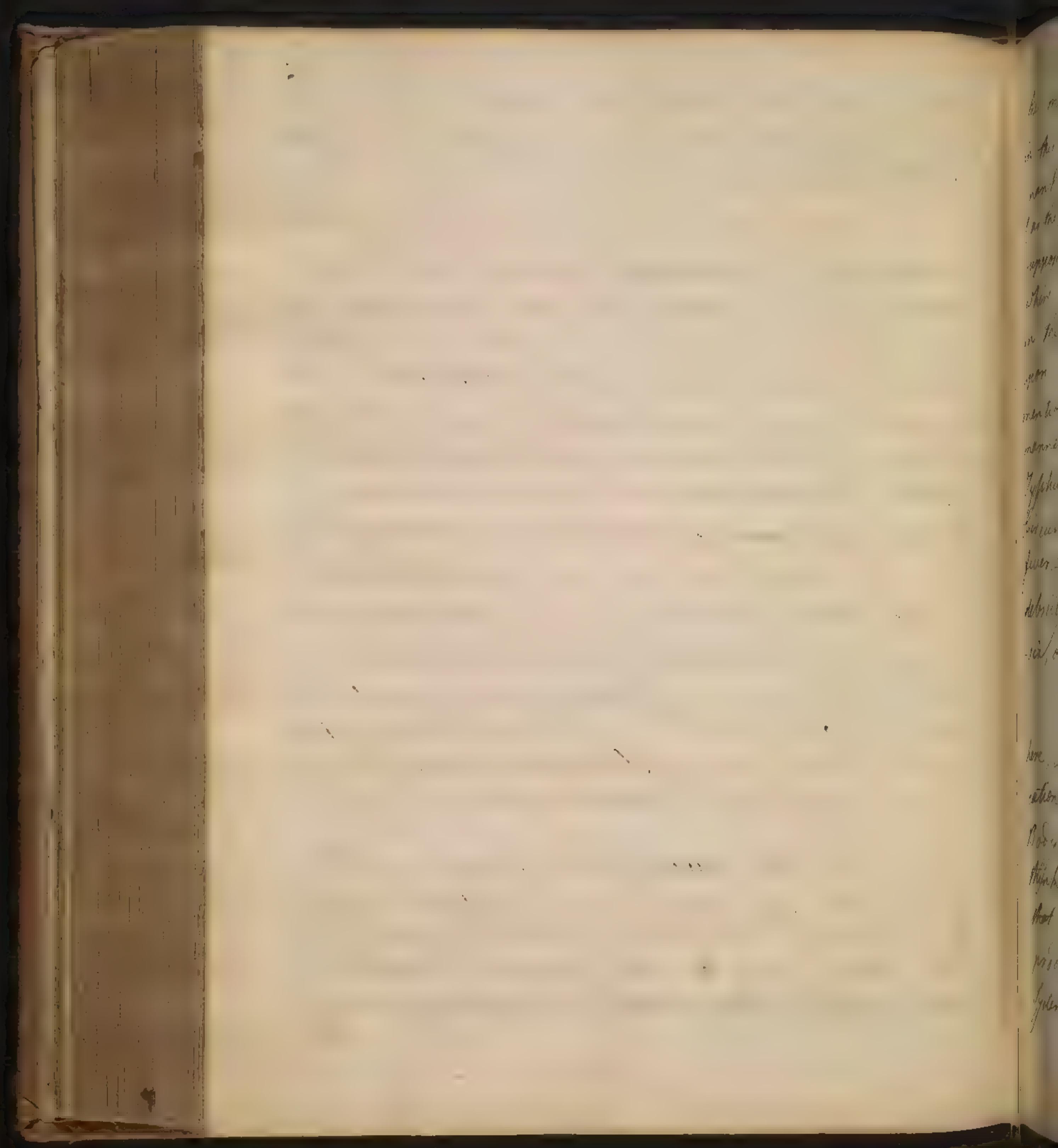


state it will at last the Reaction ceases, and Death ensues. Other both Events in the repetition of Paroxysms are to be explained -

Now when Fever begins under the form of a Synocha, or Inflammatory fever, and ends in Typhus, I think we can explain it in this manner, Viz, that when under the Circumstances of Phlogistic diathesis a fever comes on, we can here see how this comes to take on the form of Inflammatory fever at first while the vigour of the Constitution and Phlogistic diathesis subside. But afterwards, when by the repetition of Paroxysms the force of the Spasm, and at the same time the energy of the brain, are diminished. We can see as well how the appearances come now to be changed, and the fever in the end put on the form of Typhus - accordingly this is a very common combination, at least in cold climates. and to such a case we have appropriated the name of Synochus. These therefore constitute the genera of Continued fever.

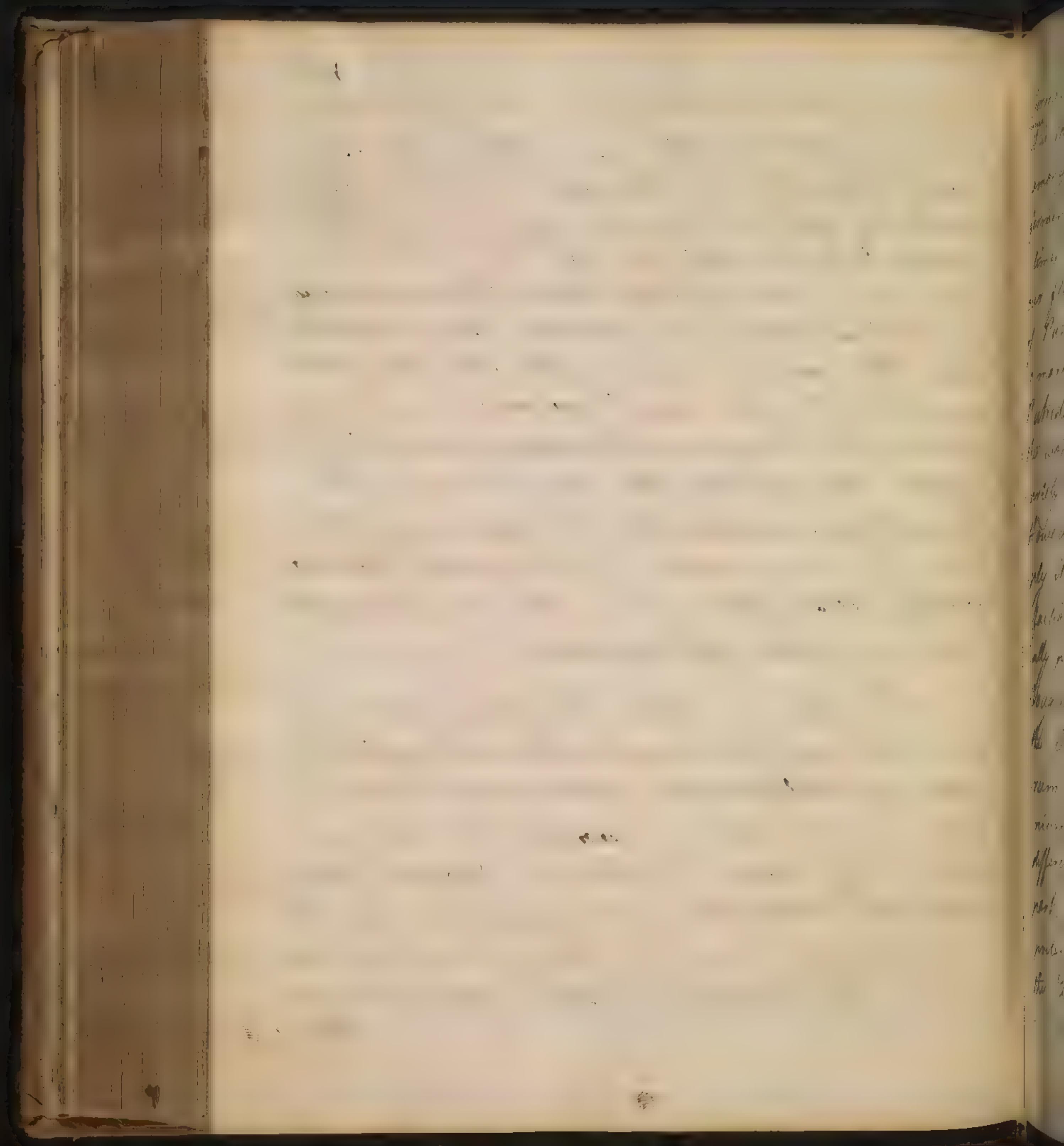
Further, Fevers suffer changes in another view, as when from the form of a Continued, a fever in the end becomes Intermittent, as in the Example of Prince's Camp fever. Or when from an Intermittent a fever is changed into a continued, which is by much

the

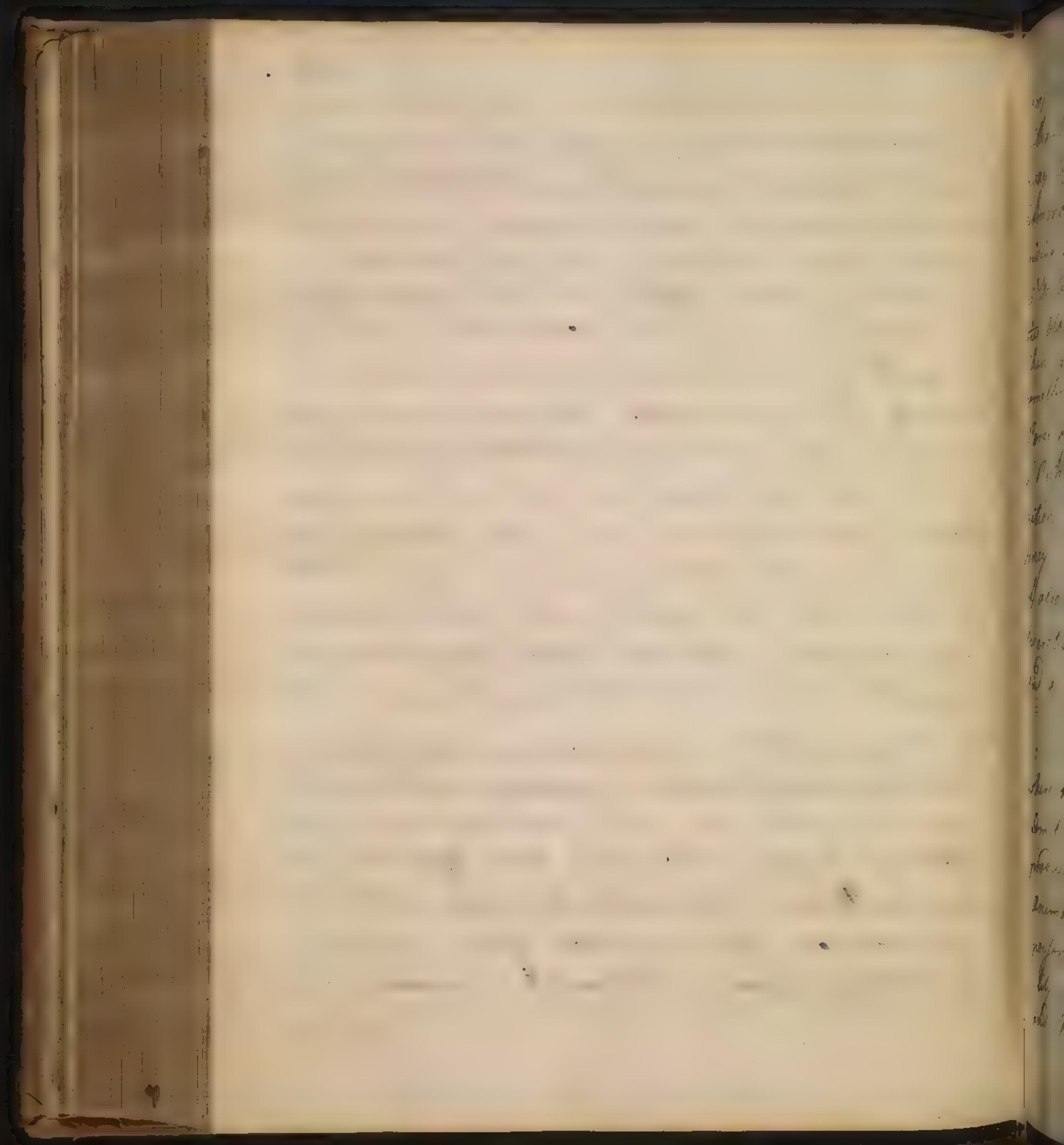


the most frequent and dangerous Case of a change  
in this respect. This latter is exemplified in the malignant  
Intermittents of Marcatus, York, and Clapham,  
(as they are called), the same kind of fever which Dr Lind  
supposes to be the chief form of Fever in the East,  
where men are exposed to Marsh Effluvia, and also  
in the West Indies. Now both these can be explained  
upon the same principles as the other Cases above  
mentioned. The first comes to us precisely in the same  
manner as the Change of Inflammatory Fever into the  
Typhus - and as to the other it is to be referred to  
Circumstances induced after the beginning of the  
fever. We may impute it to a powerful Cause of  
debility, not at first combined with Phlogistic diath-  
esis, or any attack of strong Spasm -

There is another Modification to be noticed  
here, with respect to fever; and that is the multiply-  
cation of the Exanthemous matter received into the  
Body, by its acting as a ferment - and this many  
think of the utmost Importance - though it appears  
that the Miasmata, or Contagion, in order to  
produce fever, must act chiefly on the Nervous  
System - They are otherwise often of the nature of  
flea



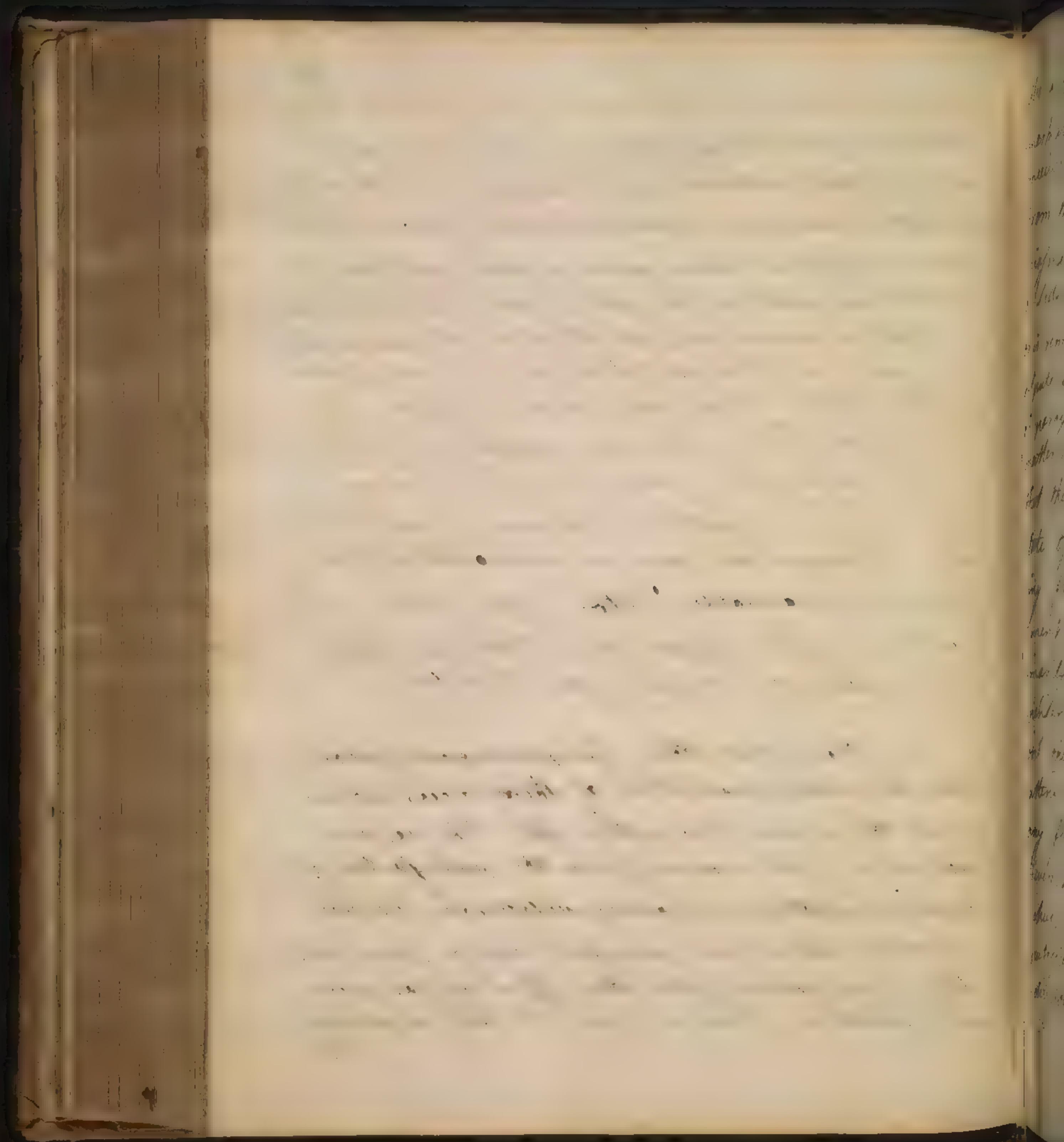
Ferments, and as such act on our fluids also - From hence it is that they come to be diffused and propagated among mankind. Now this multiplication of the ferment received (though contagion is indeed sometimes spread without any manifest alteration in our fluids) proceeds often to a considerable degree of Putrefaction - and this gives the Putrid fevers, so marked by the ancient, who made a division into Putrid and non Putrid - But the ancient applied the word Putrid with very little accuracy or propriety - and many moderns are not much more correct. However the more accurate of the Moderns apply it only where there appears some effect of Putrefaction. Thus the marks of the Putrid state actually present are, when the Blood drawn does not Coagulate, or at least in the usual manner; when the Crepamentum is less firm, and leaves the Serum of a reddish color, resembling Sotura Canarium - or when the Blood issues spontaneously from different passages, without any local affection of the part, as when it flows from the Lungs without any supernatural affection of that Organ - or from the Kidneys without at the same time Nephritic Complaints



175

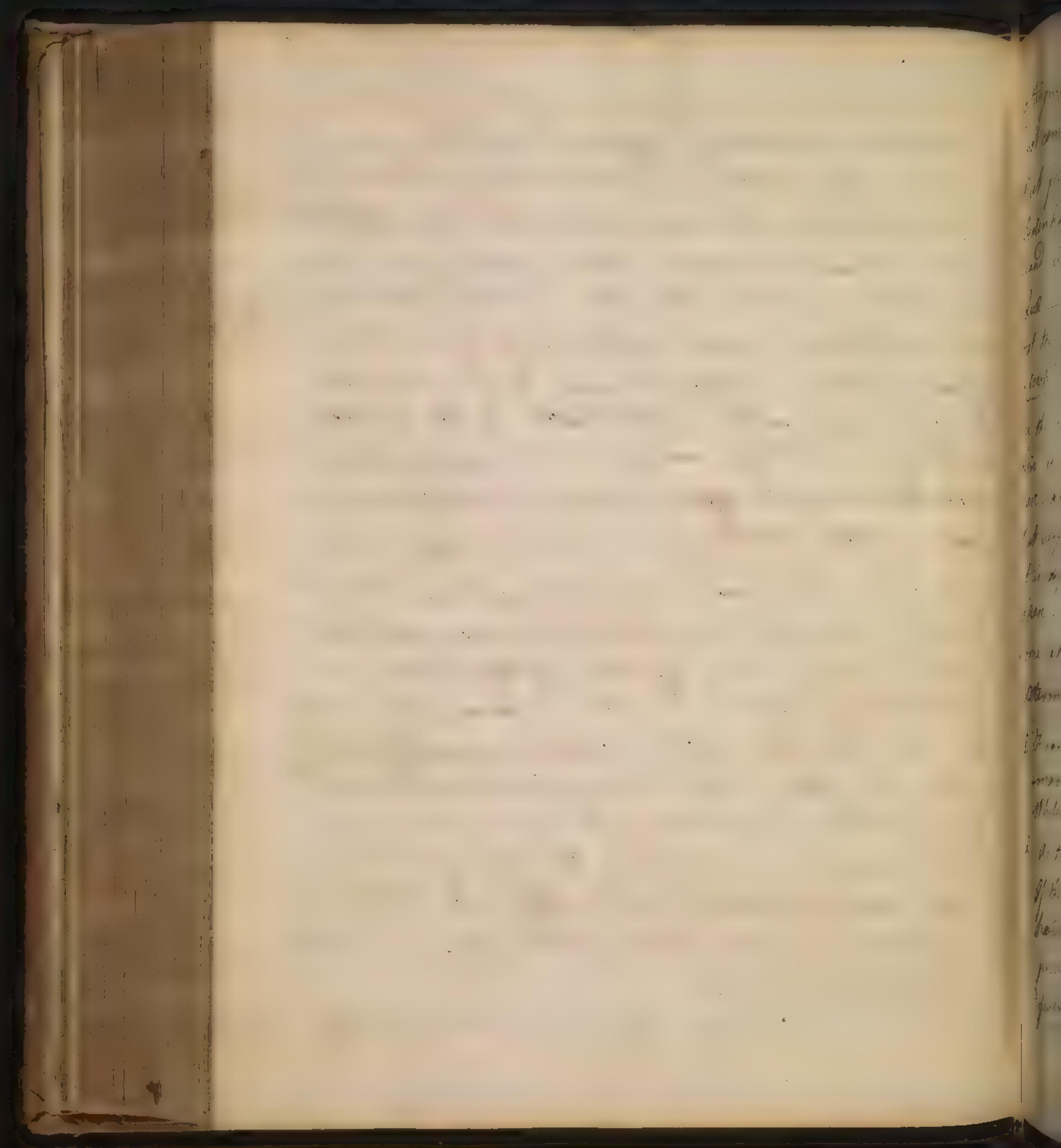
complaint, that is, if it comes away with the Urine without any Ulcers, &c. of the parts. Or if it comes away by stool without any Dysentery. But the most common Example is from the Nose, where without giving a Crisis it comes away in drops only, then it is to be imputed to the putrid state. Further when the blood is poured out into the Note Maculum of the Skin, forming Petechias, Vibes, &c. But such effusion sometimes have a deeper seat - also even from the Pores of the Skin. They are supposed to arise from Putrid dissolution of the blood rather than excrent action, also are Symptoms of diseases of a putrid tendency. Moreover the same are corroborated if there be also a remarkable Taint of the breath and excretions, fætid Cadaverous Stools and Urine - and a Cadaverous stench of the whole body -

Now when these Symptoms occur, and only where the most remarkable of them occur, do we admit the presence of a putrid state. The vapour produced in that manner from the putrefaction of animal matters is of a very deleterious, putative, poisonous nature, and powerfully tends to induce debility. This appears from the Effect of Gangrene and Sphacelus, which we find to kill insquically also



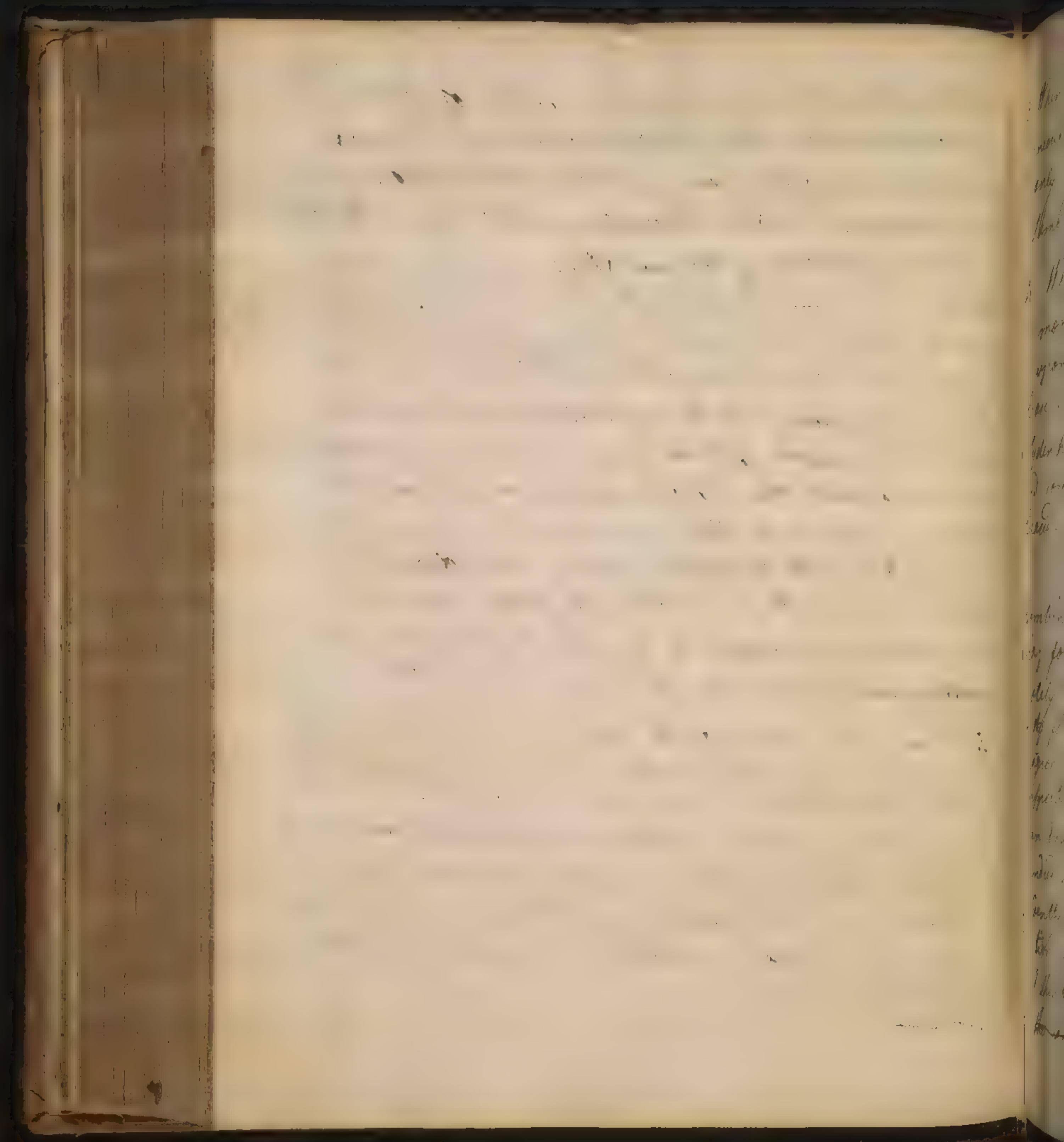
also a Gangrene in any part of the Body has remarkable debilitating Effect! and the same we conceive may happen in the advance of Fevers— From the same Phenomena too I conclude that the miasma and Contagion which produce fever, are of a Sedative nature. Now when Debility occurs, or is remarkably increased at the end of Fevers, it is a dispute with me whether it arises from a Repetition of paroxysms, or the multiplication of the Contagious matter, by its acting as a ferment. I must observe that there may be different Cases of putrefaction. The state of the Putrefaction and the Consequences arising from it, may be truly owing to a putrid ferment introduced. But Putrefaction may also be primarily owing to an affection of the Solids, independent of a ferment, from a cause acting wholly on the Nervous System. But we are not here to attend to these Differences, or consider the matter any further at present. The several genera of Fevers, and more particularly the Typhus and Synochus, may be attended with different states of putrefaction in the fluids, which may give a subdivision into species.

I have now laid a foundation for dif-  
tin



distinguishing the Genera and Species of fevers, when  
not complicated with the other Orders of Pyrexia -  
But fever is often joined with Phlegmatis, as in  
Sydenham's *Febris Pleuritica*, which began the dif-  
ferent Constitution of the year 1673 - see his works -  
"Quod ———— adcedunt" There is a plain proof  
that the fever is the original disease, from its coming on  
a fresh, and continuing after the other had gone off -  
See the Constitution of the years 1673, 74, and 75. There  
then is no doubt that the fever was the original dif-  
ease, and that the Phlegmatis supervened afterwards.  
But very frequently there are cases occurring, where  
it is difficult to distinguish which is the *Idiopathic*  
disease - and as it is a matter of great importance,  
some attention ought to be paid to it - It may be  
determined from the following Considerations.

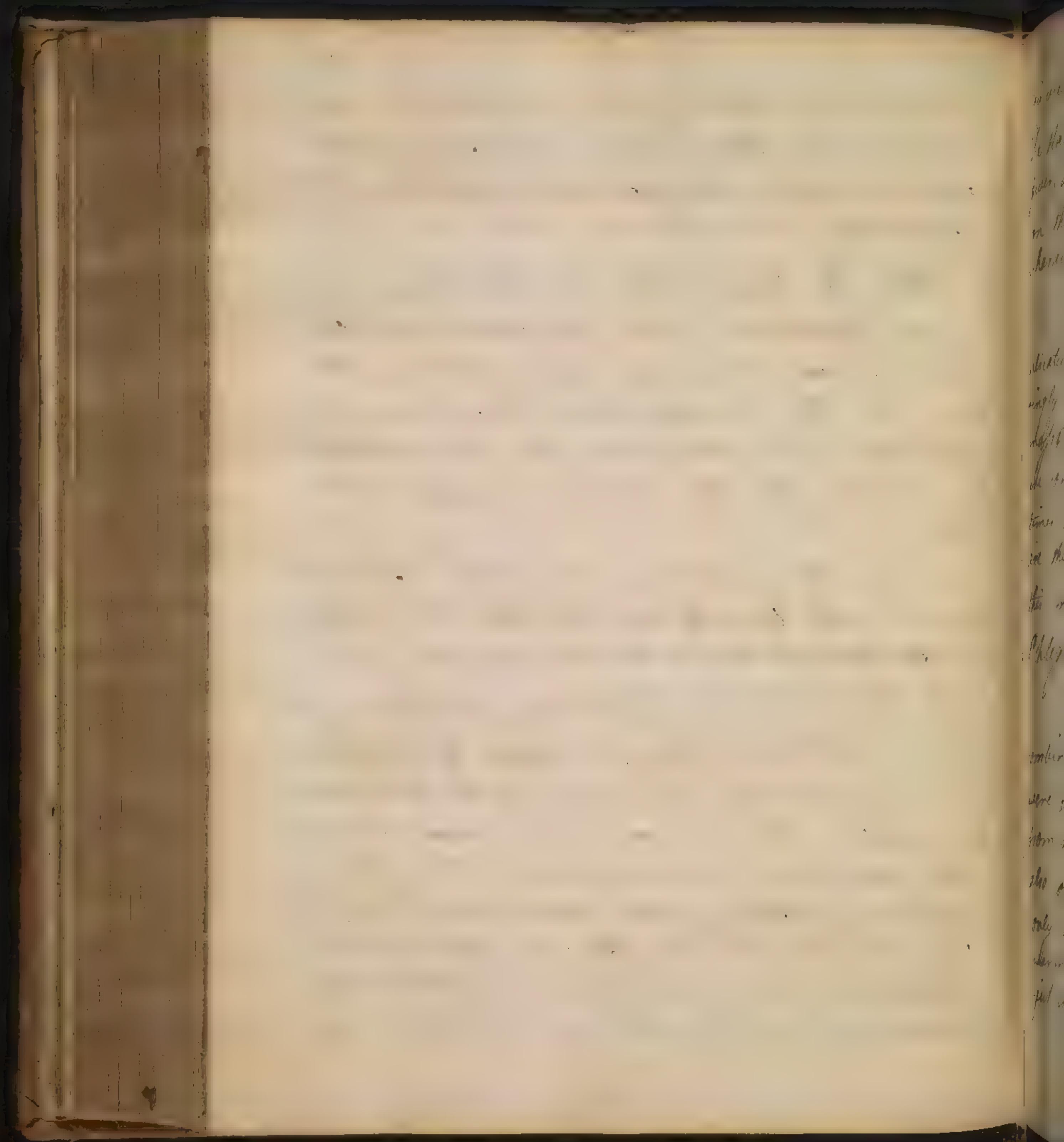
1. From the season of the year - In the Spring Phleg-  
-matis are most common, and rather to be expected.  
While the Autumn is more productive of fevers -
2. As the Symptoms of the one or the other begin first.  
If the Inflammatory Symptoms first take place, we  
have reason to look upon the Phlegmatis as the  
primary disease - If otherwise we conclude it to be  
fever.



3. When the Symptoms of the two diseases simultaneous, we can know which is the fundamental only by knowing the diseases that are Epidemic at the same time.

4. When the Exacerbations and Remissions are more regular and evident, the fever may be looked upon as the Prevailing disease, which was the Case with the Synochetus Pleuriticus of Savanier, or Sydenham's Fibris Pleuritica, when the fever subsifted some time after the Pleuritic symptoms had ceased.

In the next place proper fever is frequently combined with Exanthemata, the third Order of Rupyria; for there are Cases where Exanthemata arise solely from a certain Condition of the Skin and State of the fever, independant of any peculiar Specific Contagion, such as the Small-pox, Measles, &c. are each respectively owing to - an Example are the Petechiae, an Eruption that comes out in some fevers. But this indeed I do not reckon an Example - It is most evidently a symptom of some fevers - The Miliary Eruption has been attended with more difficulty - It is I think in some Cases an Example of the same of the same kind, and has given great dispute in this

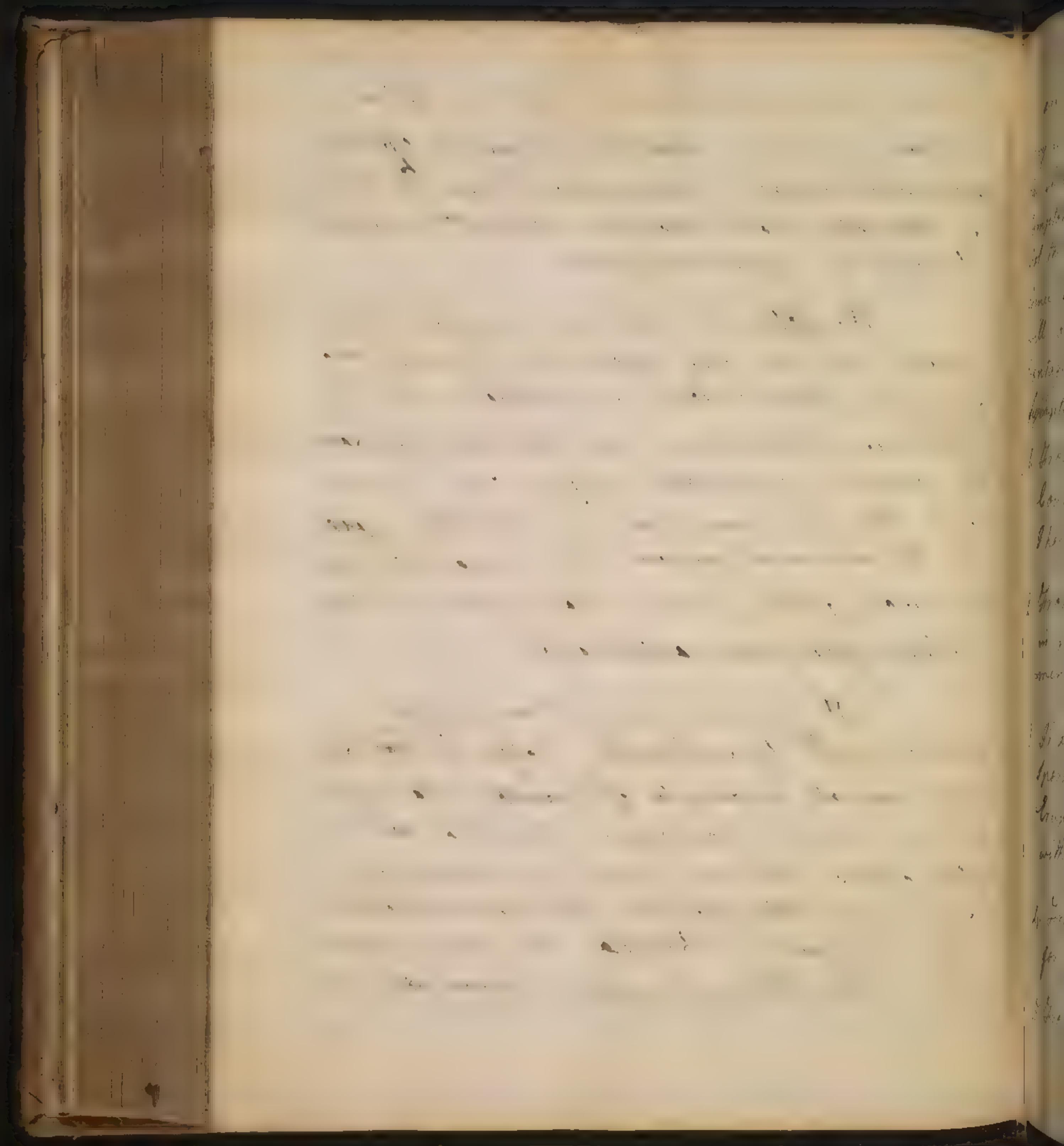


This view among the present Physicians of Vienna - De Haen maintains that it is always the Effect of fever, and therefore symptomatic; and Dr. Roth on the other hand that it is Idiopathic, and gives character to a particular fever.

We observed that fevers are often complicated with the other disorders of Pyrosis - accordingly we considered them as complicated with Phlegmatis, in which Case we said that the Phlegmatis are sometimes a symptom of fever only. But sometimes they are complicated, and the Phlegmatis are then principal disease. Here we cannot discuss this more fully, until we have considered the Phlegmatis more particularly.

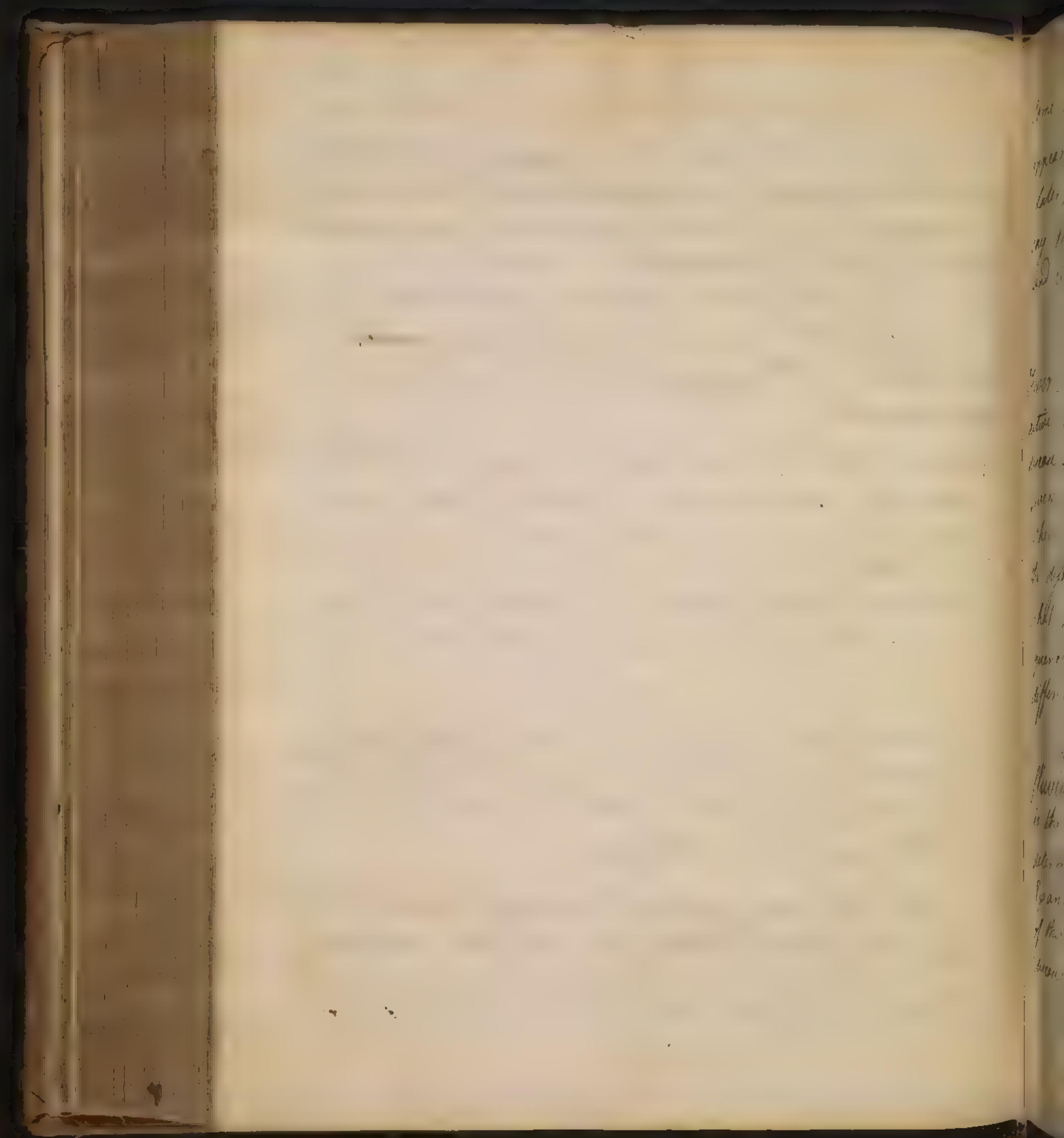
We were proceeding to consider fever as combined with Exanthemata. I observed that there were several Examples of Exanthemata arising from a specific Contagion. But that there are also others which are merely symptoms of fever, only accidentally produced. This has occasioned a warm dispute at Vienna, the particular subject is the Miliary Eruption. Upon the whole

we



we are led to conclude that these Physicians are very much in the spirit of Controversy; for though the Miliary Eruption is undoubted for the most part symptomatic, yet if there be any truth in the observation that the disease first appears at one part, and from thence gradually spread over the rest of Europe, it will appear to be sometimes owing to a specific contagion - But we conclude that it is most frequently symptomatic

1. From its having always been Sporadic in this Country; for in a course of thirty years practice, I have never once seen it Epidemic.
2. From its affecting chiefly Infying Women, who are in particular Circumstances of the warm Weather - men -
3. It arises from a variety of Causes which operate Sporadically - and also it varies as to the time of the Eruption, which shews that it cannot be connected with any Specific Contagion.
4. From its occurring only in a certain state of sweating; for this disease is always preceded by sweating.
5. From its being always produced by sweating in some

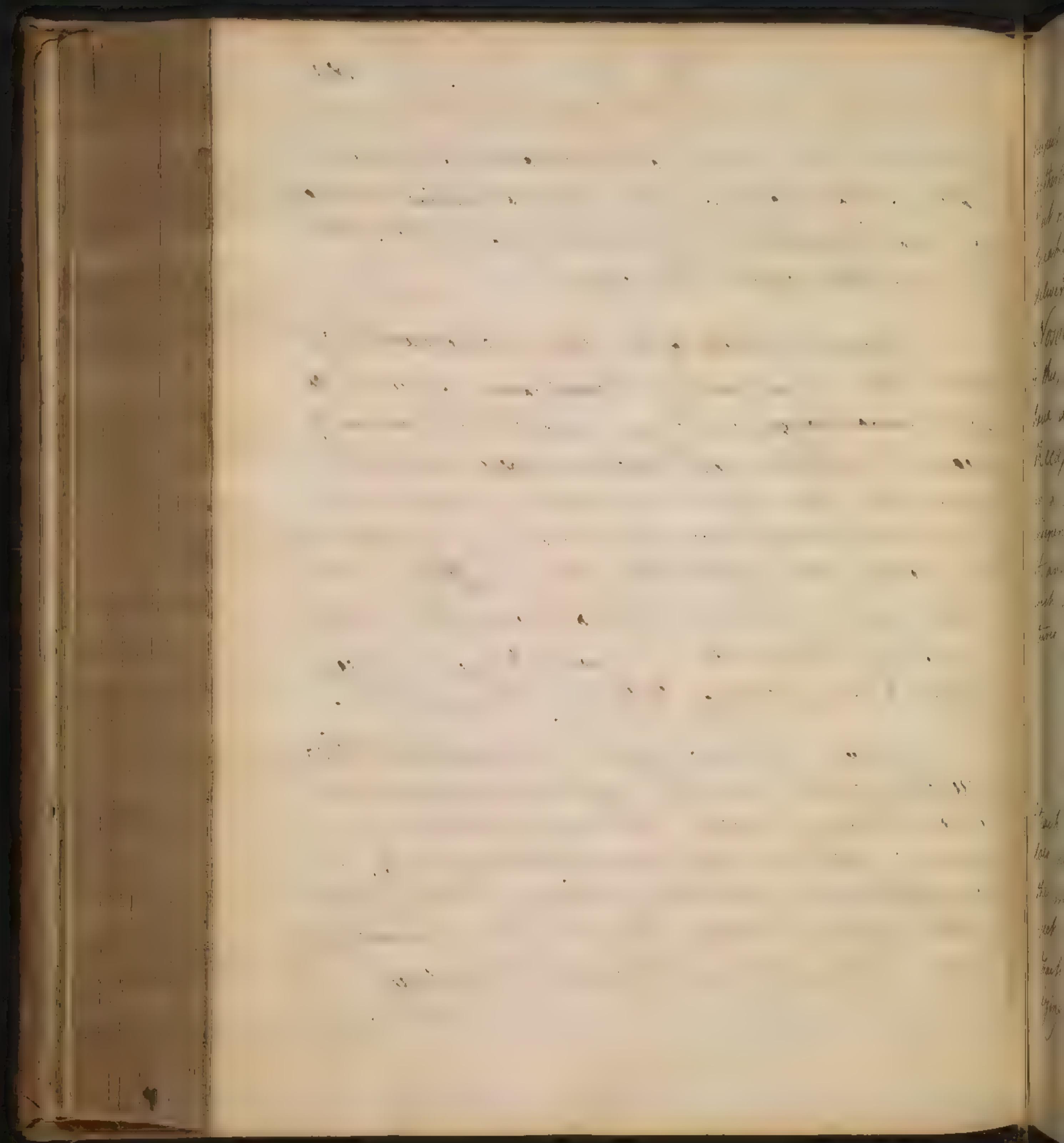


Some people - In these, therefore, and because it appears in some fevers sometimes sooner and sometimes later, without observing any regular period, we may say that it is produced by a certain state of the fever and condition of the skin conjoined -

I go on to speak of the other Complications of Fever - There is no case of a complication of fever with active hemorrhagy, so as to give a particular species of disease - Sometimes such hemorrhages do happen in fevers, but then only as a crisis. At other times when hemorrhagy occurs in fevers as a symptom of the dissolved state of the blood, they are nothing else but what properly occur in putrid Fevers, and in consequence of Putrefaction, and cannot give a species different from that of Putrid fever above mentioned.

Lastly, fevers are often complicated with Profluvia, in which case it is difficult to ascertain which is the primary disease - There are marks, however, to determine this, as with respect to Phlegmatis, and Exanthemata - But the particular consideration of this must be delayed till we come to speak of the diseases themselves, viz, Catarrh and Typhus -

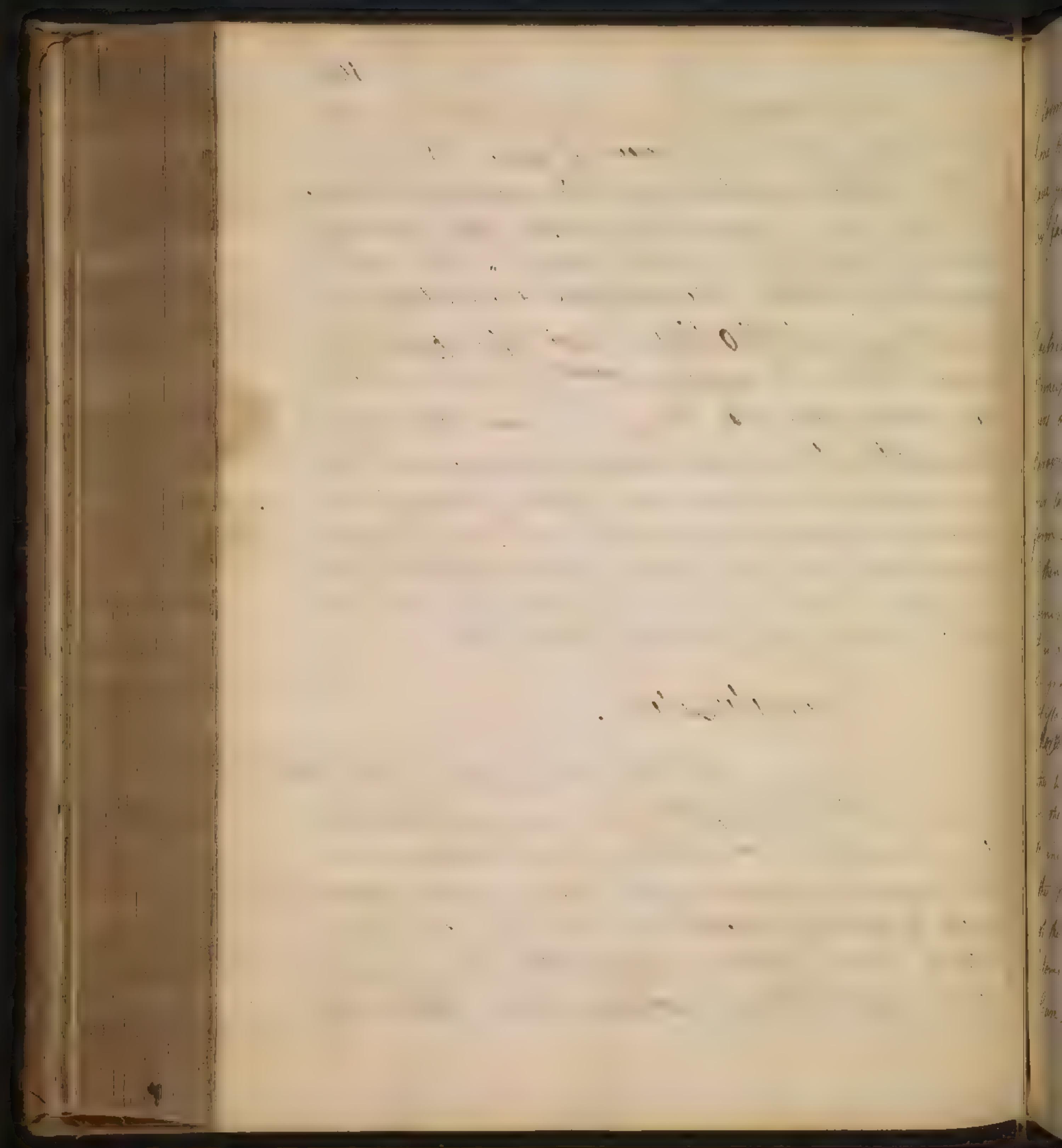
This



This, therefore, is our general Doctrine with respect to the Genera and Species of fevers. We have hitherto proceeded, sometimes on Facts, sometimes on theory. But now I am to begin and ascertain the fact only, speaking of the Genera and Species, as they have been delivered by authors. Here therefore it is we begin our *Nosologia Methodica*. But before proceeding to this, I think it necessary that we review what we have already delivered, and give a short Summary or Recapitulation of it, in order to lay down the whole in a more plain manner, as a system of connected and independant Parts, that you may the better see through it, and comprehend it. In this Recapitulation I would wish also to touch several parts of our Preliminary Lectures; but our time will not admit of it.

### Recapitulation.

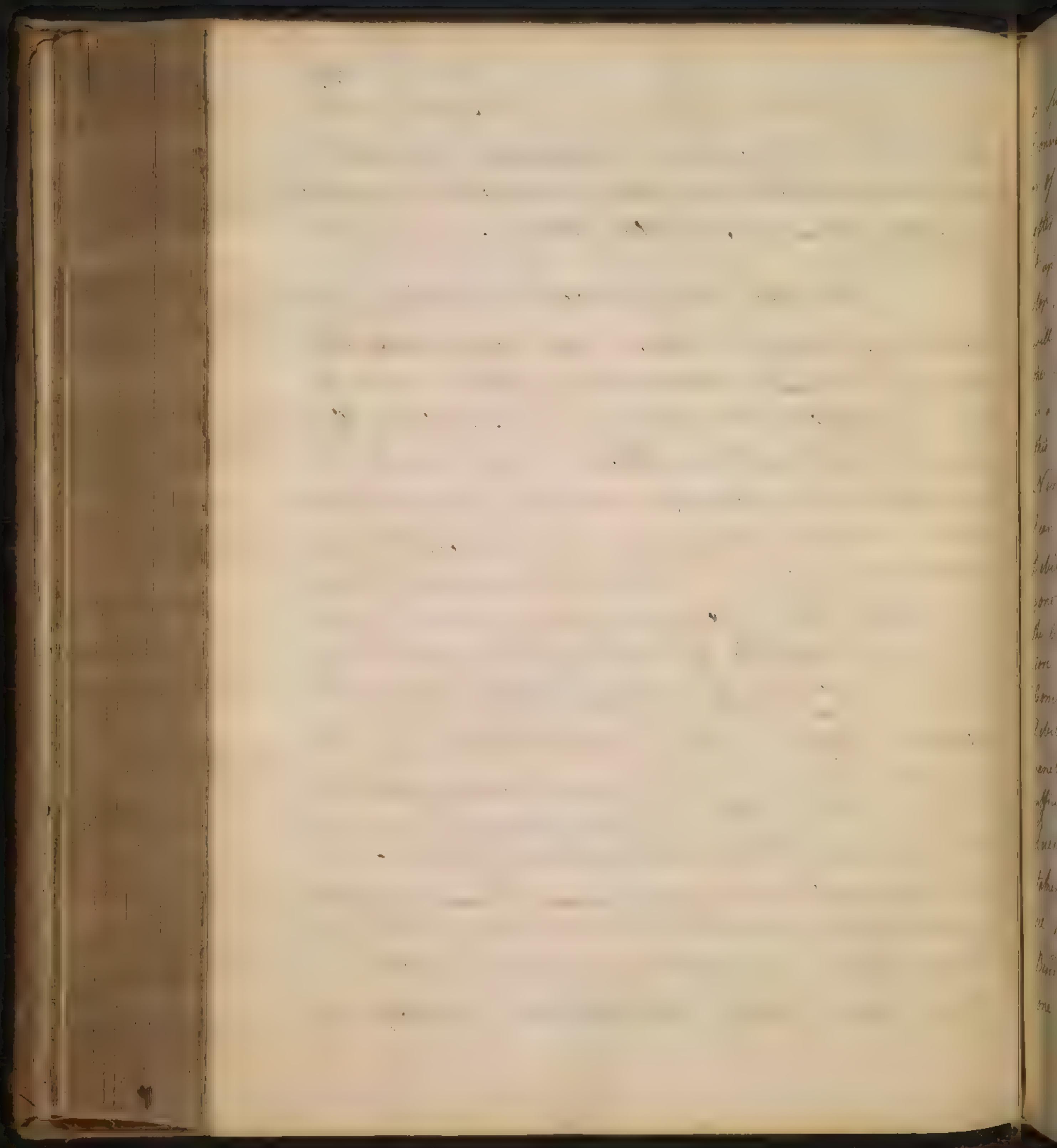
I only say, with regard to my general Plan, that I teach the Practice of Physic on a new footing. This does not consist in the Novelty of my Doctrine, but in the manner of delivering the Facts. I reduce the subject to general Principles, which are all so many Facts. Thus I follow a dogmatical Plan, by generalizing on facts; for it is altogether from these that



I form my general Conclusions - and by this means I hope to banish every thing Hypothetical; for I would have you herein to receive nothing but what is confirmed by facts, and has its foundation therein.

On this Plan I proceeded in delivering the Doctrine of Fevers - I began with laying down the Principal and leading Phenomena of Fever - and as fevers only differ in the frequency and Duration of their Paroxysms, you will from thence see the Propriety of our taking such an Example, when it is in its most distinct form - such as a Paroxysm of an Intermittent fever.

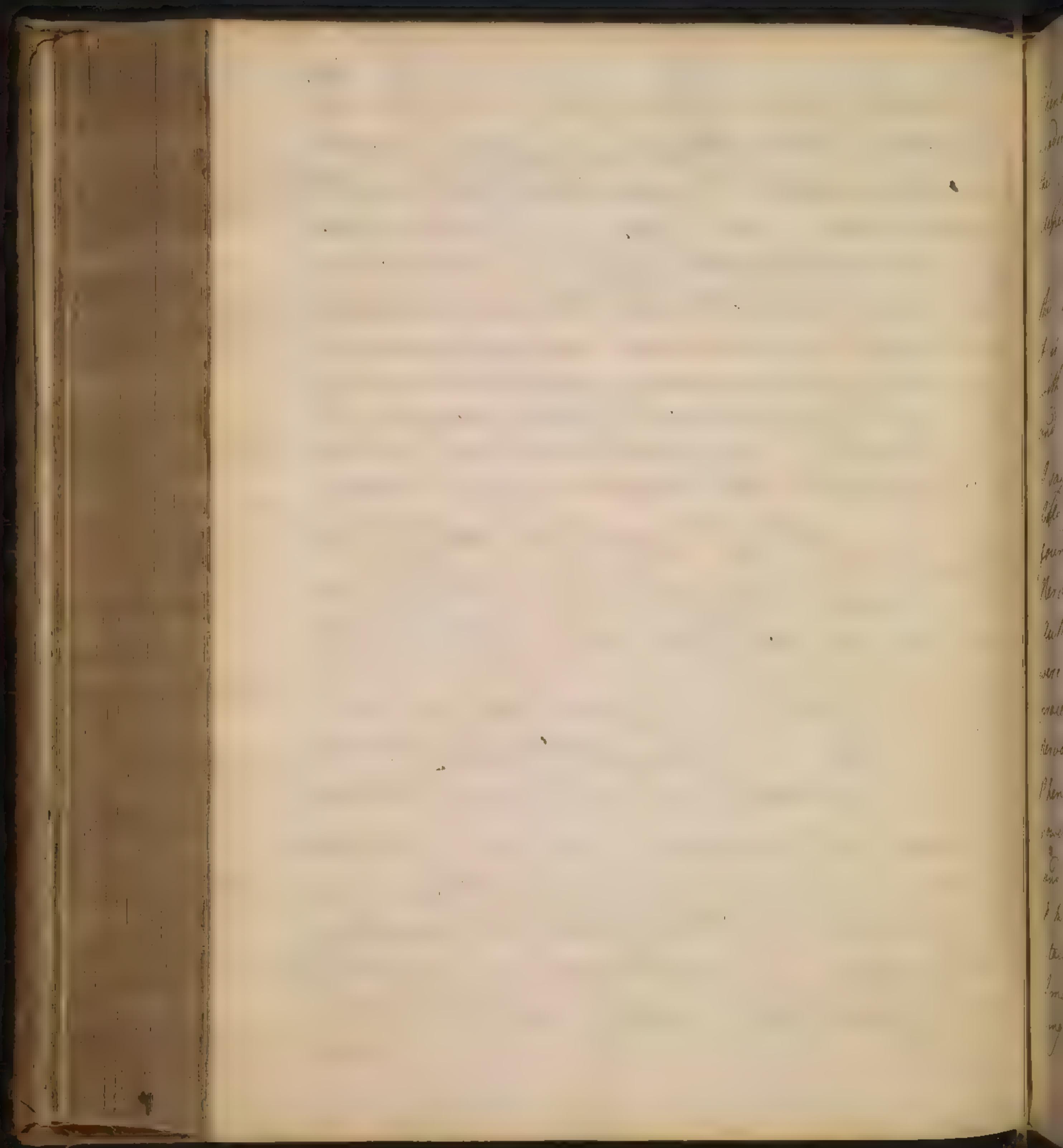
I then went on to speak of their Succession, and the Combinations they undergo in different Cases - But as it is almost impossible for me to describe the whole of the great variety that occurs here - I referred you for such a History to the Authors on this subject, as Sydenham, Morton, Hoffman, Senac, Yorth, Cleghorn, &c - Upon the Whole, however, I showed you that fevers differ only in the duration of their Paroxysms - upon this we proceeded to investigate the Propriate Causes of Fevers By the Propriate Cause of a disease, I mean that state of the body, or its Parts, on which the general symptoms depend - and by changing which we obtain a Cure - Thus in Drancy, the apparent symptoms are



1841.

a Swelling of the Belly, &c. - Now here the first thing I consider is, whether it depends on a collection of water or of air. Whether it be an Aætis or Gympanitis. after ascertaining this, perhaps I go further, and trace it up to the Irritability of the Liver. Here then I stop, having discovered the full Proximate cause, which will direct us in the Cure. Now in Fever I can in the same way go no further than to say that the Proximate cause is a debility of the Nervous System. But as to what this Debility is, what state of the Brain, of the Nervous fluid, &c. it depends on, I cannot tell. - I can go no further than just to say, that there is a Debility which takes place; and in that I have gone a sufficient length to direct my Practice. all the conclusions I formed are matters of fact, and therefore I proceed on them with Confidence. a principal Conclusion was from the above simple cause, a Debility of the Nervous system and all the series and variety of Phenomena that follow this, I think rendered sufficiently probable. Look into the late author Mons. Quennoe, and see how he is embarrassed by his having taken up the notion of a Complicated cause also see the same in Van Swieten and Boerhaave. Besides from many considerations we are led to adopt one simple cause, to which the whole series of the

now

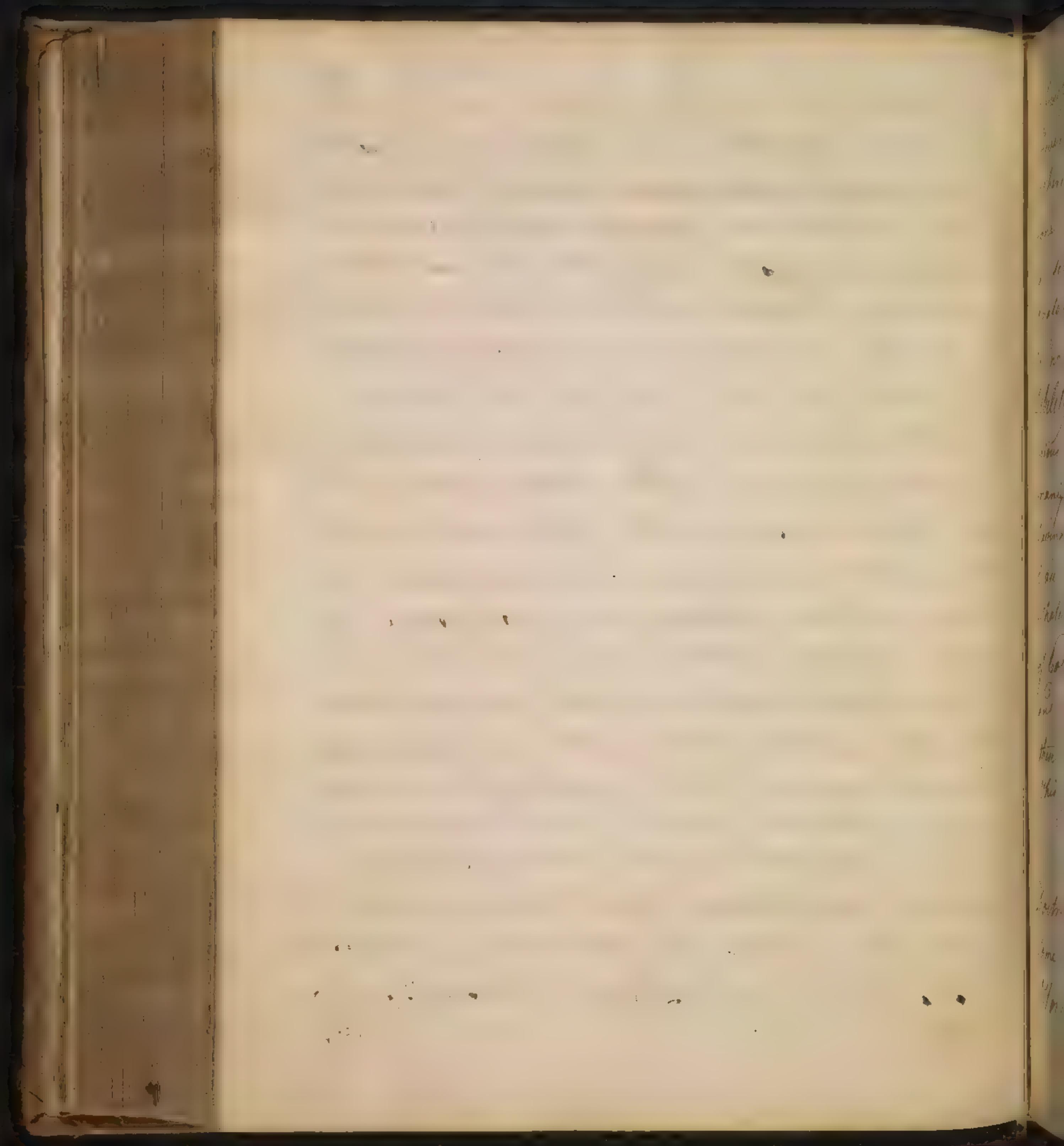


Phenomena is owing. This Cause Operating may produce some principal and leading Circumstances in the System, upon which others may be supposed to depend.

Now, as the Cold fit is first in Order of the Phenomena of a febrile Paroxysm, I conclude it is the first in Series of Cause and Effect. and with respect to it, instead of saying with Boerhaave and Van Swieten "in omni Fiebre Intermittente," I say, with Hoffman, in omni Fiebre there is a Cold fit in the beginning. In the next place we found that the Cold fit is an affection of the Nervous System, and even Senac, and the several Authors, Boerhaave and Van Swieten, we shewed were inclined to believe in this position. We then proceeded to enquire wherein the affection of the Nervous System consisted; and from Contemplating the Phenomena, placed it in a Debility of the nervous power, or Energy of the Brain. This I know as well, and am as certain of, as that when I move my finger I know that it is owing to the contraction of a certain Muscle by my knowledge of Anatomy. But I mentioned Spasm of the Extreme Vessels, as including the former in the series of cause and effect. This



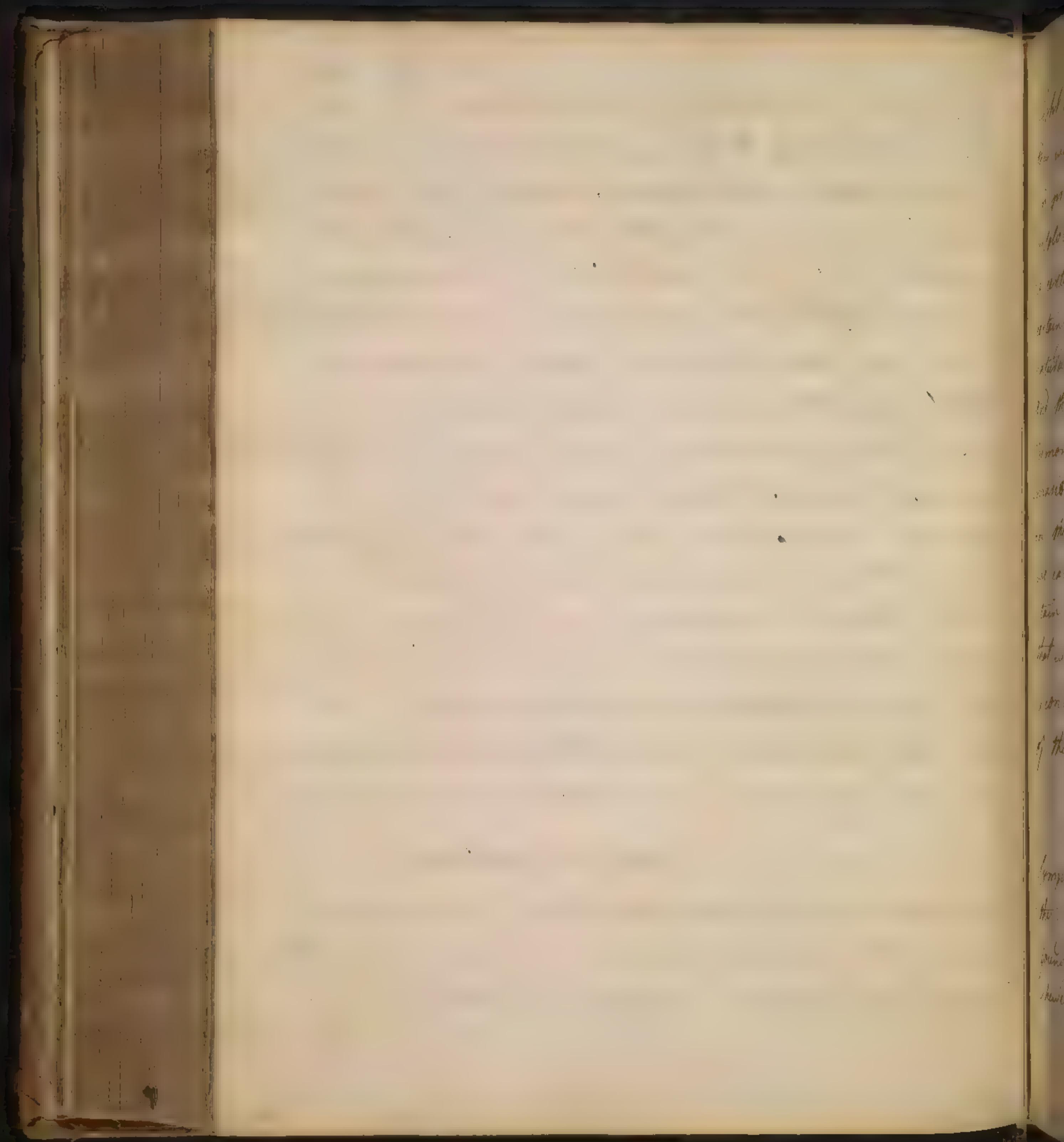
This is as much a fact, and occurs as universally in fevers as the other - and then two are followed by an increased action of the Heart and arteries, in which authors have generally considered fever more especially to consist - Now both these last states depend upon the former as their Proximate Cause - so far, then, we have come to a useful conclusion. We say that in every fever these three States occur, viz., Debility, Spasm, and Increased action, succeeding one another as Cause and Effect. Now to explain how these are produced by one another, I said was very much to our purpose - But all we could do here was to refer to a general Law of the System, viz. the autonergia. But I would wish to go further in the Explanation - and as to this I say that, I really believe the Connection between the above mentioned States, by that Law of the System, is mechanical - We found no difficulty in accounting for the Production of Spasm from Debility - But it is more difficult to account for Increased action. I thought it was illustrated by the Operation of Cold - But neither can we explain how the Reaction is produced by Cold - However I could not omit to take notice of a difficulty



sufficiently that occurs here, viz, that it might be imagined Fever was owing to a direct Cause of Spasm - But where are such direct causes of Spasm? We know of none - But even conclude that the action of Cold produced a sense of Cold with a debilitating state, similar or analogous to Debility - However, at any rate this can be no proof that the cause of Spasm is not commonly a Debility; for there are many cases where an evident, previous debility takes place, and where the fever arises from manifest causes of Debility, without the action of Cold having any share at all in producing it - This indeed is the case with all fevers without tropical affections. But whatever there is in this reasoning relating to the operation of Cold, it is sufficiently evident as a fact, that debility and Spasm do take place in every proper fever - And then are the causes of the third state, enervation and action. This you may take as one of our leading Principles.

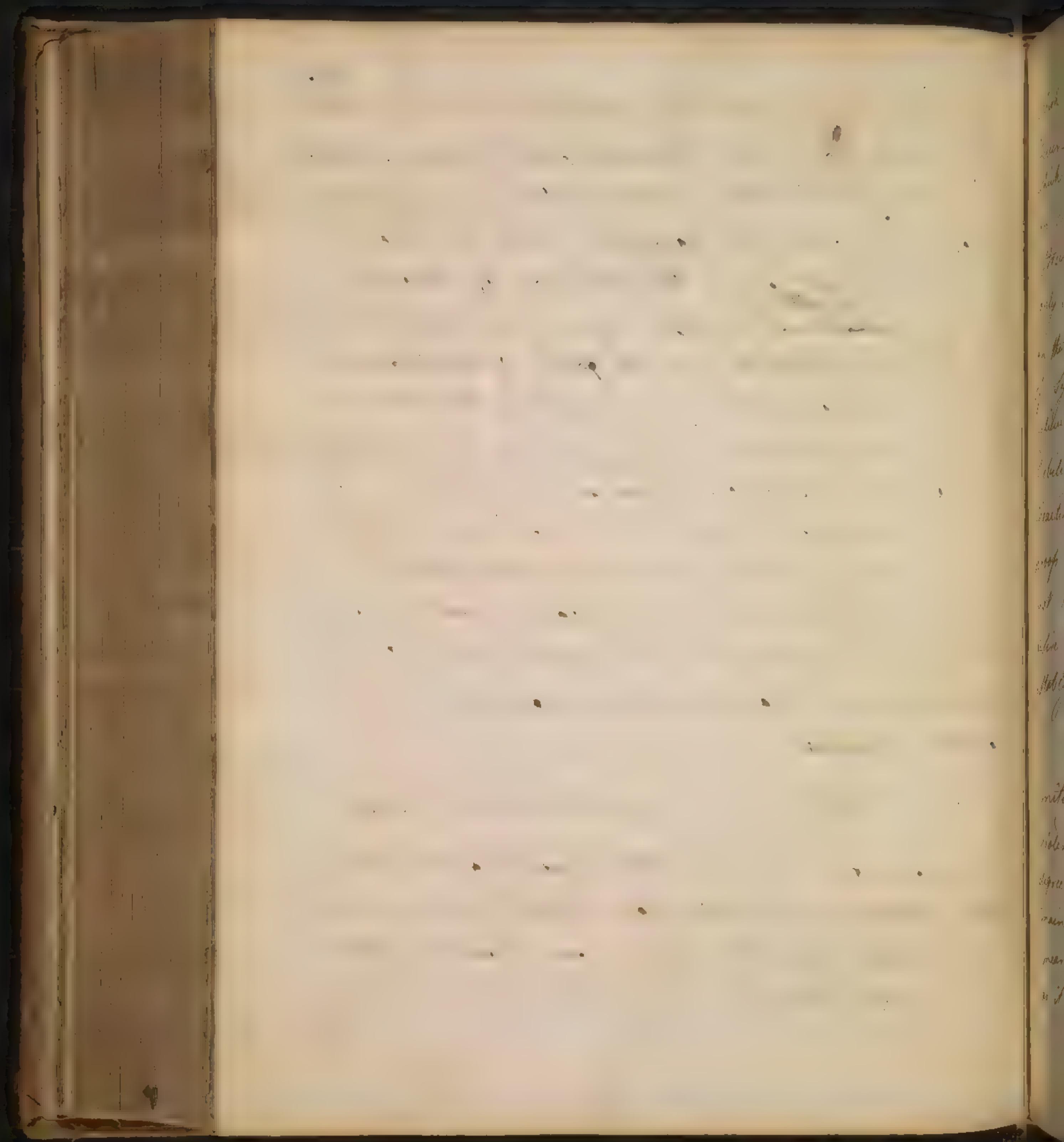
In order to make the application of the Doctrine more complete, I consider in the next place some of the principal symptoms of fever - and first Horror and Tremor - I apprehended these in a new

light



light, adhering, however, to matter of fact; and concluded they were a part of the Reaction of the System, and that in proportion to these was the reaction more effectual in resolving resolving the Paroxysm. But here I have gone a certain length only. The duration of Paroxysms is certainly ~~dependent~~<sup>dependent</sup>, in great measure (and indeed it is very natural to suppose so), on the force of the Reaction - and this, we have shewn, is indicated by the Horror and Tremor. But still, when we consider the Case of Phlegmatis we are at a loss. There are certain Peculiarities in the Horror and Tremor, but what their origin is we cannot say, but are led to conclude that there are certain Circumstances in the Reaction that is produced, that we are unacquainted with; which however have a considerable Share in determining the duration of the Pyrexia.

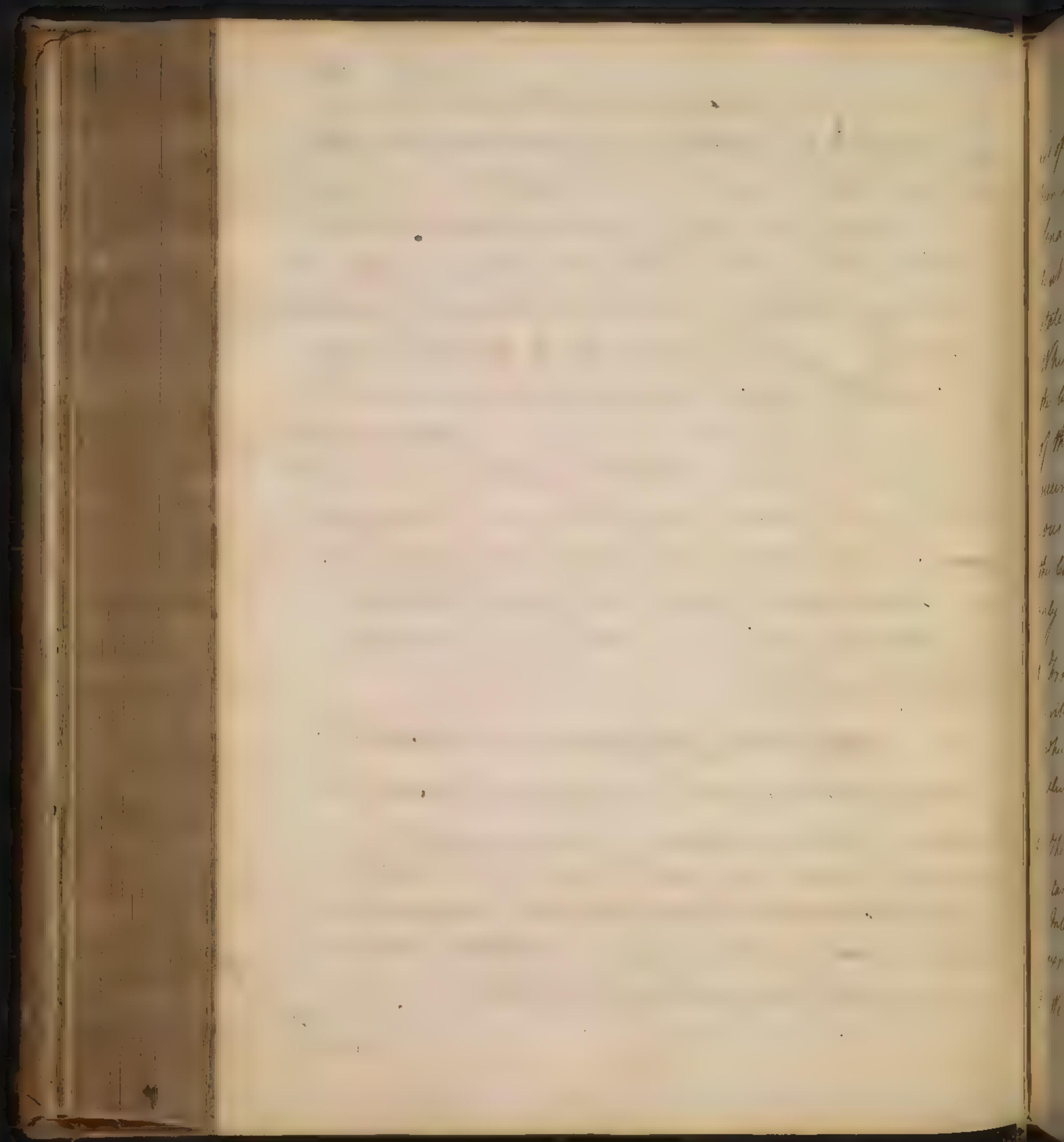
We proceed next to consider other symptoms of fever, viz, those regarding the State of the Stomach, Nausea, Vomiting, &c. - These, we found tended also to confirm our Doctrine; for I shewed that Debility might produce them also - of which



which we have instances enough in other cases besides Fever. But I knew that there were also other circumstances which intervened to produce these symptoms. i.e., the Spasm in the Sustentor; for they are always proportioned to the Constitution of the Skin. These symptoms, therefore, not only indicate a Debility, but also the Spasm or Constitution of the Skin. This led somewhat to the consideration of sympathetic affections, from whence we are induced to believe (as I have formerly shewn in the Institutions), that Debility, or (as I call it) Collapse, is often a cause of the Reaction of the System. I cannot here give a detail of the proofs on which this Position is founded, but for such as have not had the Opportunity of hearing my Institutes, I advise that they would receive this, upon Credit, that it is established upon fact.

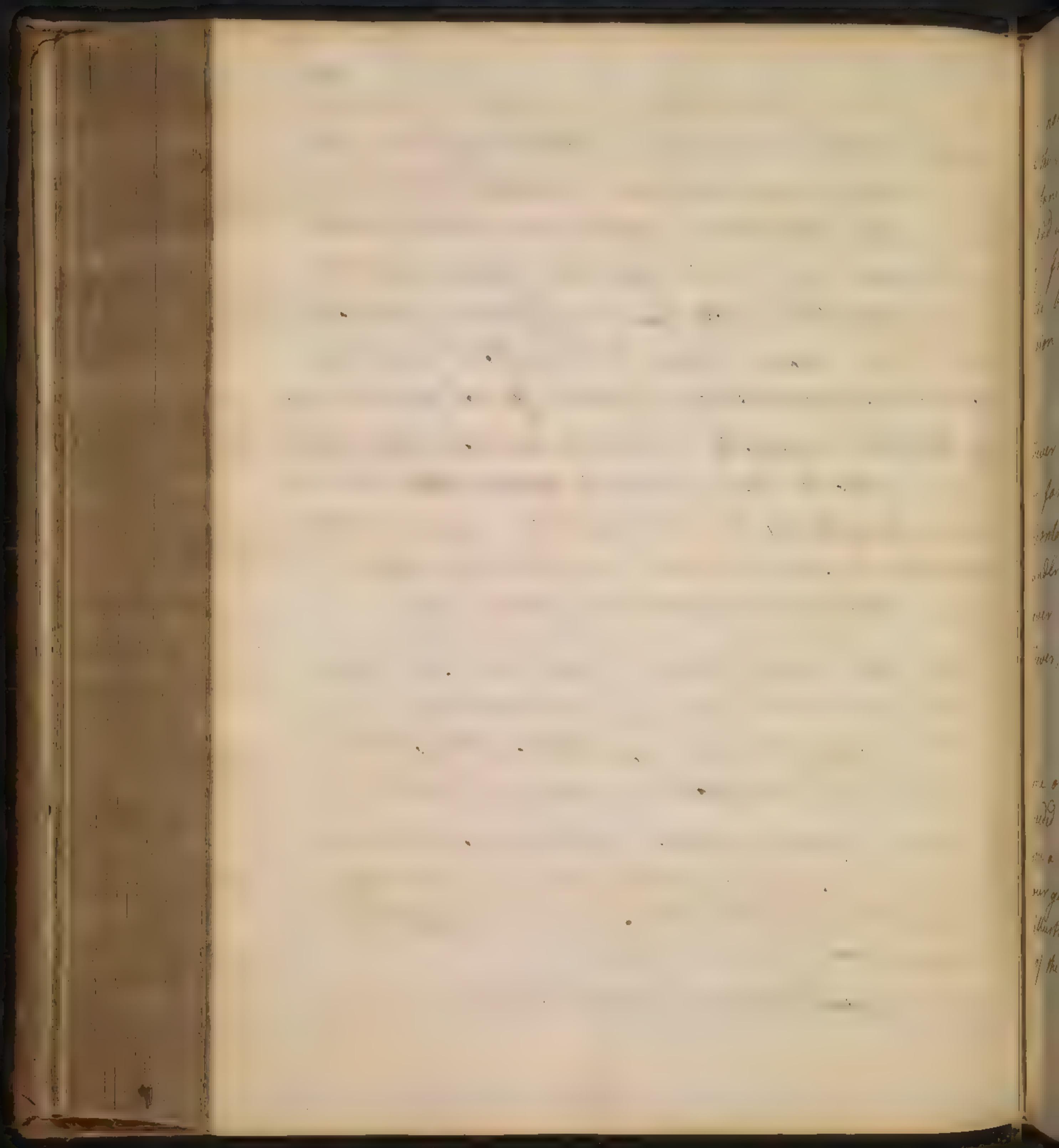
Upon this foundation I said, that the vomiting which occurs in fever is in one light, then violent, a bad symptom, as it shews the force or degree of its cause, viz., great Debility. But still I maintained that the action of Vomiting itself was by no means a bad symptom, but of a salutary tendency, as it upsets the Reaction of the System.

Now



Now as this vomiting is a frequent symptom, and often attended with a great Ejection of Bile, it has been an opinion from the time of Hippocrates down to Senac, that the Bile was the cause of the Vomiting. But depends very much upon the suspicion that the state of the Bile is the cause of fevers in general. Which we have shewn to be without grounds; for the like appearance of a great Effusion and Arimony of the Bile, especially in the autumnal season, often occur, without Fever. But it appears that these biliary symptoms are not essential, as being connected with the cause of fevers, but are owing to Circumstances only - and may be explained in three ways -

1. From the natural change of the Bile, and its disposition to become more acrid and abundant in autumn, which is always the case; for the Vomiting of Bile is always most remarkable in autumnal fevers.
2. The accumulation of blood in the System of the Vena Portatum, which always takes place very considerably in Intermittent and Remittent fevers, will sufficiently explain those symptoms. But further
3. We are induced to believe that the Vomiting in Fevers is

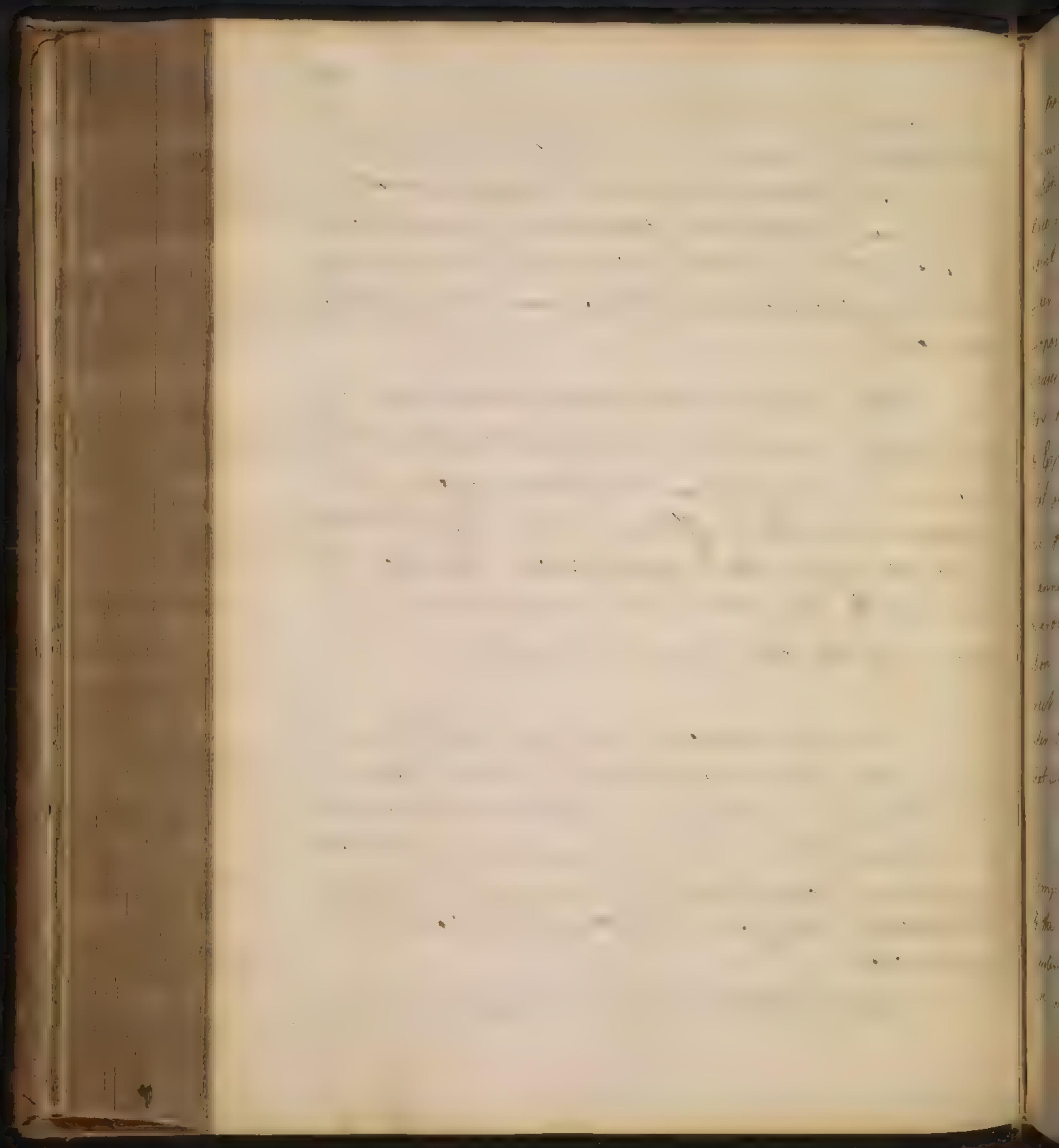


is not owing to the Bile, or any direct stimulus applied to the Stomach, because it is connected with other Circumstances, and appears to be produced symptomatically - and we can explain the appearances we are speaking of from the very action of Vomiting, tending to enliven the biliary Excretaries, and thus occasion the greater effusion of it -

And moreover the Opinion of the Cause of Fever being in the Bile is still further confuted, in so far as we know of another cause of fever, viz, Contagion and Marsh-Effluvia, which we find to operate under all Circumstances of the Bile - and also whatever be the Condition of the Bile, it does not produce Fever, unless this other cause be Present.

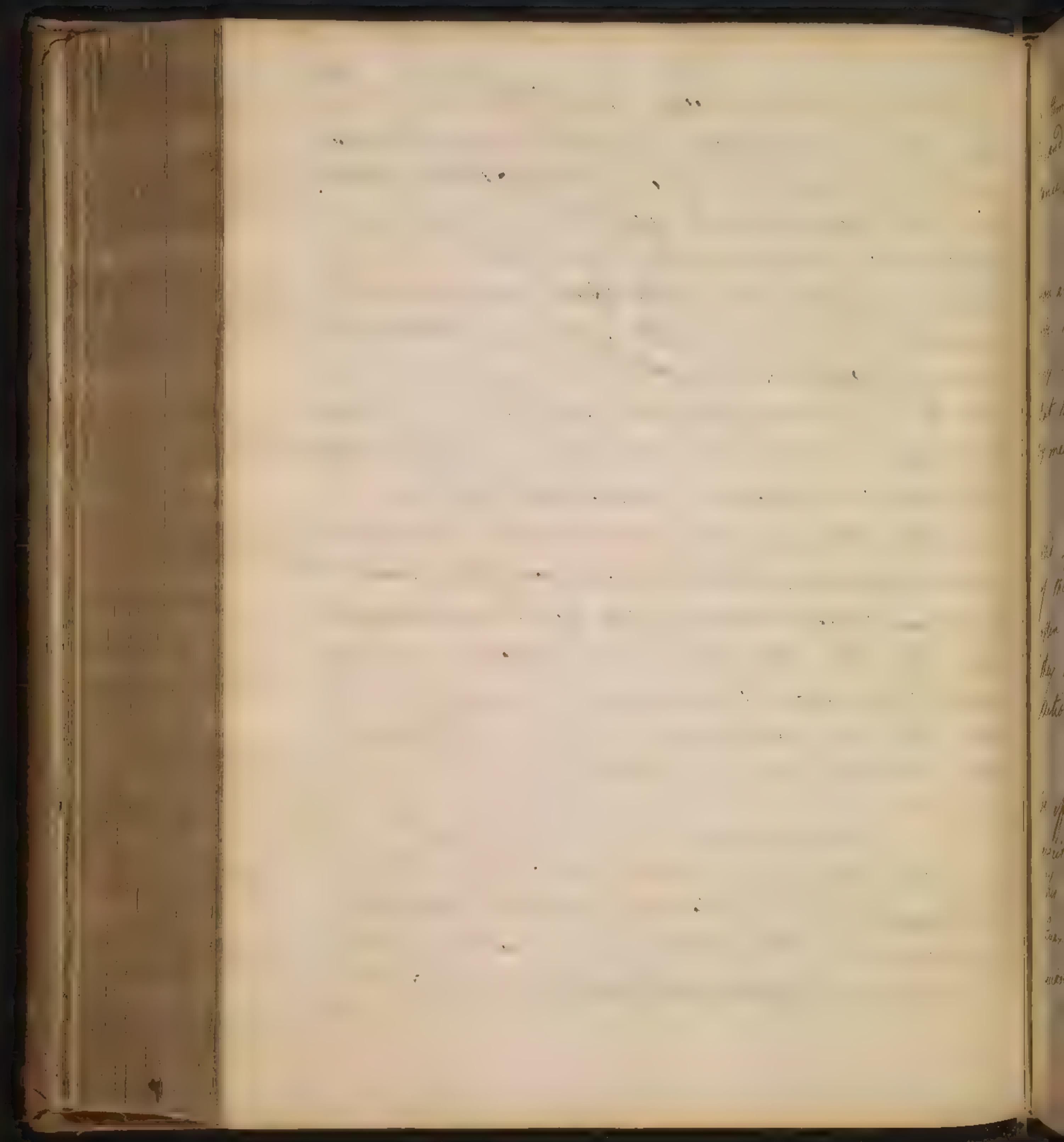
I am very anxious that you should comprehend me on this Subject of Fever, on which I have proceeded slowly in delivering it; and besides am now giving you a Recapitulation, in which you are allowed to take our general Conclusions, while you miss the proofs and illustrations. Thus you will better see the connection of the whole.

Upon this plan, then, my principal Conclusion is



is, that the whole phenomena of fever, <sup>comes</sup> on three  
circumstances of the system, Debility, Spasm, and Inward  
action of the heart and arteries. With this farther, that these  
three states regularly succeed each other, as they occur in  
point of time. They also follow each other in the same  
order successively as Cause and Effect. Now these general  
propositions I consider as matter of fact, viz, that they are  
Causes and Effects of each other; but how they are so, and  
how the one state produces the other, I cannot undertake  
to explain. I cannot give the reason why the debility  
that occurs in Syncope is not productive of Spasm, and  
the other Consequences, such as happen in Fevers. This  
I cannot explain, at least what Conjectures I could make  
towards an explanation are fitter for Private Conver-  
sation than the Professors Chair. However with re-  
spect to the above Propositions, concerning fever, I con-  
sider them as matter of fact; and it is not necessary  
that we be able to give an explanation.

In the next place I was considering the several  
symptoms that occur in fevers. and of these, with respect  
to the affections of the Stomach, I observed that in our  
system, when the action of any part is excited,  
we must not always look for the cause of it in

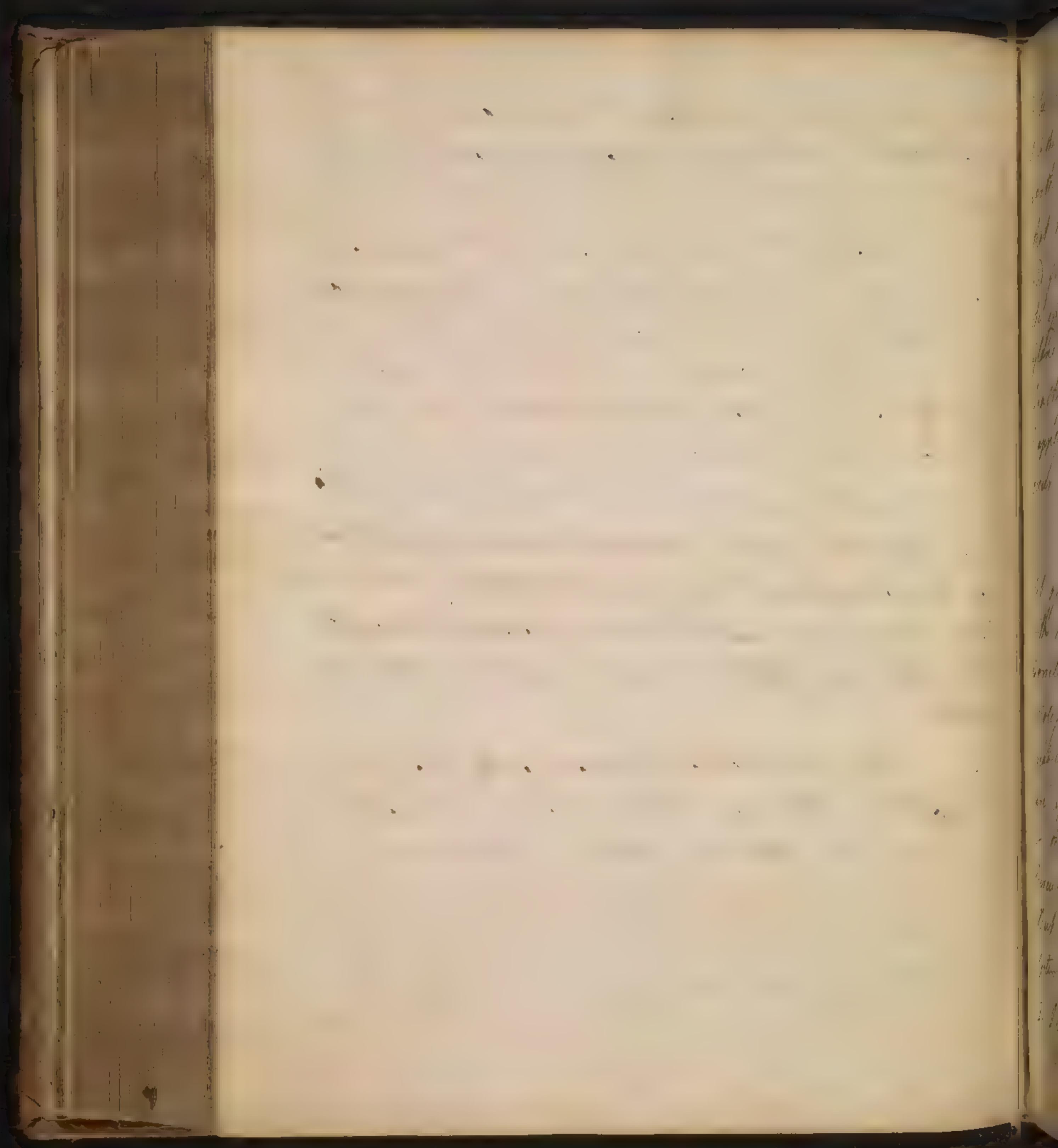


a Stimulus applied immediately to that part, but it may be, and often is, owing to an affection of parts at a distance.

To this I might add another Proposition (if you are all prepared for it), which is sufficiently clear, viz. that such Consent of Parts is not owing to any immediate Connexion between those parts, but that the one is influenced by the state of the other by means of the Sensorium.

a third particular I would have you attend to, and admit as proven, is that the Causes of excited action of the part are not always direct Stimuli - but are often such as are really Causes of Collapse, though they have the effect in some Instances of exciting Action -

Now I say that any Organ of the Body may be affected in this way - It may have an excited action excited in it without the necessity of a stimulus applied to it. Thus when a secreted fluid fluid is poured out in greater quantity, or in greater acrimony, it is not the greater quantity or greater acrimony of the secretion that is

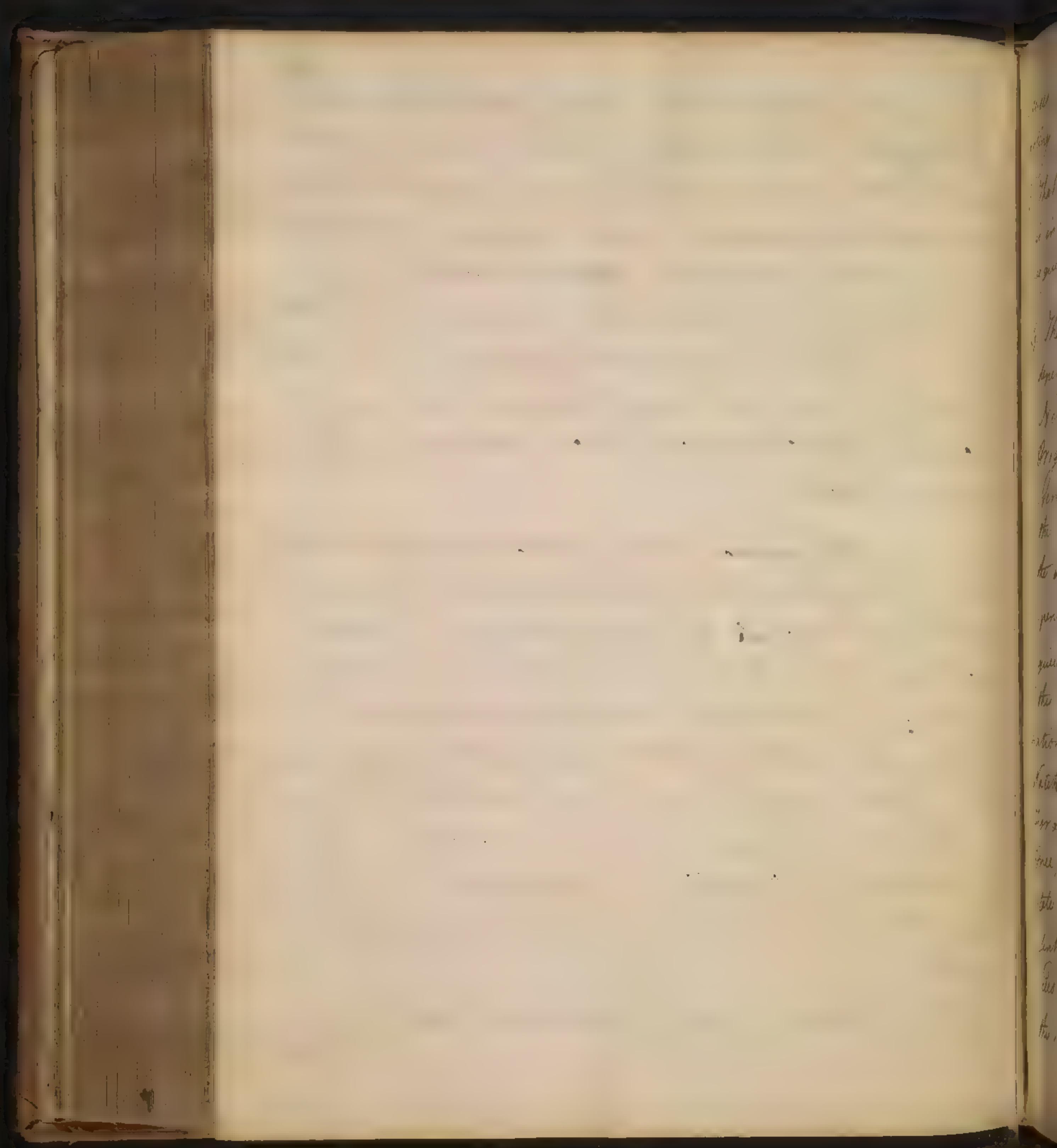


195.

to be looked upon as the cause of the affection, but it is the effect - When a Woman from any cause pours forth what we call Salt Tears, it is not to be imagined that there was a quantity of these Tears previously collected, and from hence the present effusion. But it is purely the effect of an overrained action communicated to the gland. From a fracture of the skull a man, perfectly healthful before, throws up Pomeraceous Bile - Now this I apply to the Vomiting and bilious appearance that occurs in Fevers -

We proceed in the next place to consider another set of Symptoms, those of the Intellectual Functions; with respect to which I shall shortly run over what we concluded. Our conclusions were founded upon some Physiological Propositions - The first of which is (what will readily be admitted), that when our Intellectual Functions are affected, it depends upon Causes that make a change in the Nervous system - Sometimes a change in the circulation may affect the Intellectual Functions - But this is only by changing the state of the Nervous system -

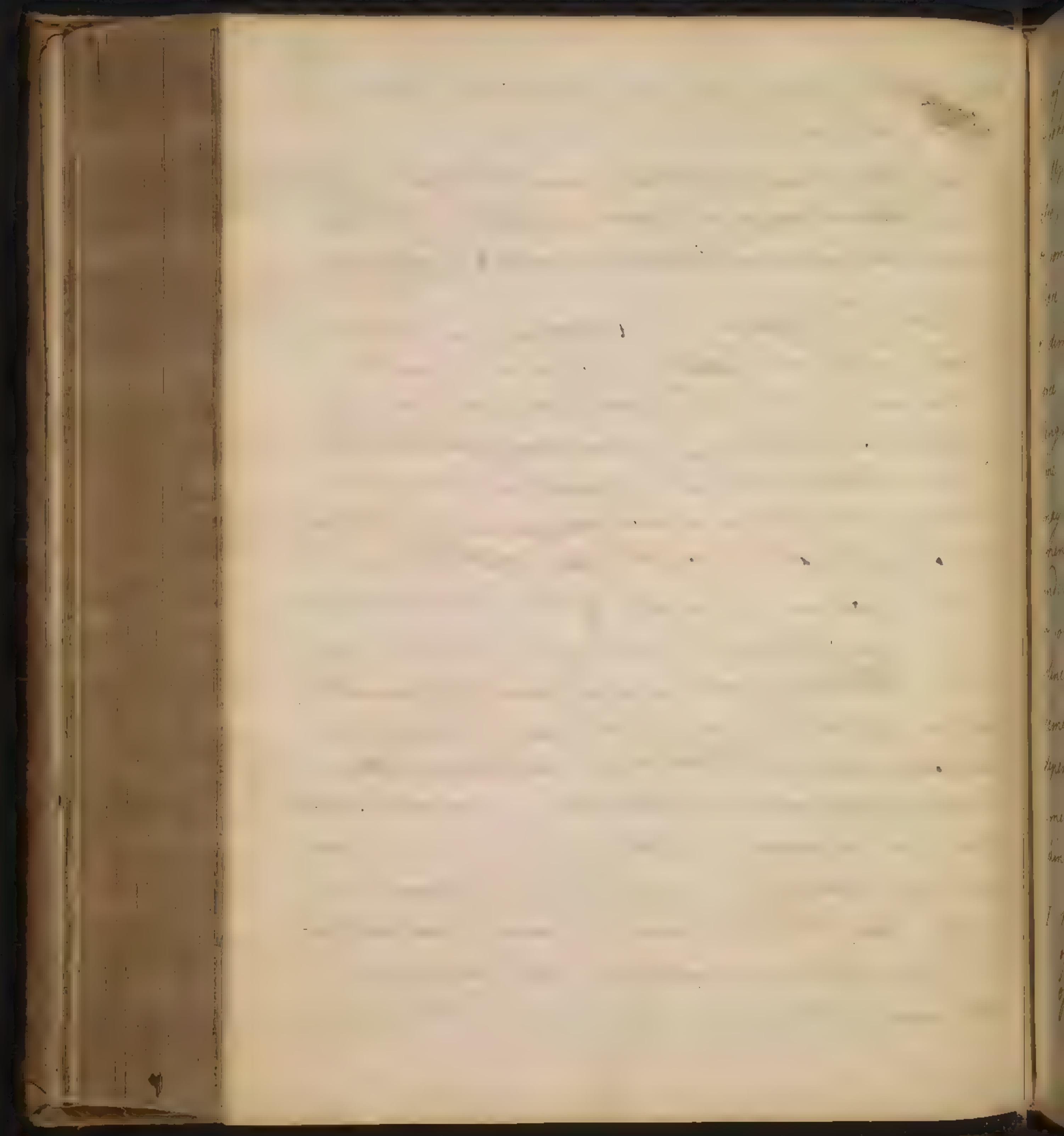
2. I lay it down as another Proposition, that there are causes



Causes which change the state of the Nervous system, by acting directly upon it.

3. That from the action of these causes the nervous system is in different degrees of Vigour and activity, & which we give the names of Excitement & Collapse.

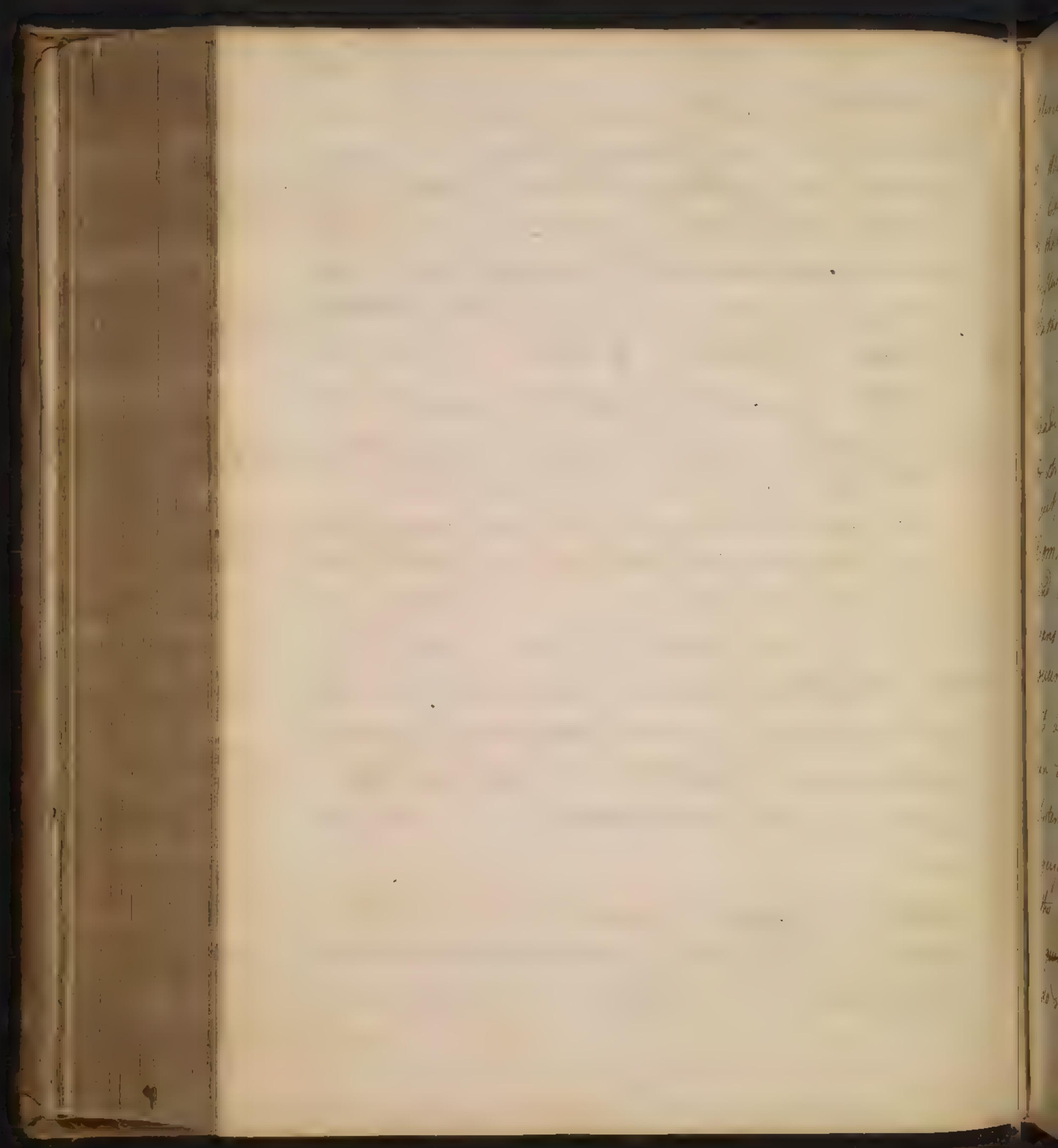
4. That Consistency and Coherence in thinking depend upon an Equality of Excitement over the Nervous system, and particularly the common Origin or Sensorium, which constitutes the difference between the states of Sanity and Madness. In the former there is a free communication between the several parts. I say, therefore, that Delirium depends upon an inequality of this Excitement, which gives Inconsistency and Incoherence in thinking. Of this I think we give a very plain and easy Illustration, by taking a view of the states of Sleeping and Waking, and the Intermediate state between them. For a person does not fall asleep nor awake all at once, but by degrees. and therefore in the Intermediate state we always see somewhat of a Delirium present. For the Excitement in waking does not proceed equally at once over the whole Sensorium. and the same is the case with respect to the coming on



on of Collapse in falling asleep. and hence too we see Incoherence and Inconsistency of thinking in that state.

Upon the same footing we explain dreaming; and also, I think, the Delirium of fevers must be referred to somewhat of the same kind. I presume that in this case the Causes of fever operate to induce a Collapse, or diminution of the Energy of the brain to a certain degree, which, however, we often see proceeds to the length of Coma, or morbid Sleep; while at the same time the action of the heart and arteries remains; which may be considered, as certainly it is, a cause of Excitement. Hence, therefore, the Excitement of the brain, under such Circumstance, is in some sort in a greater, in some in a lesser degree. and from such Circumstances it is plain Delirium must arise. at the same time while we have this general Explanation, depending upon the Debility, or Collapse and Excitement, we perceive that Delirium may be of two kinds

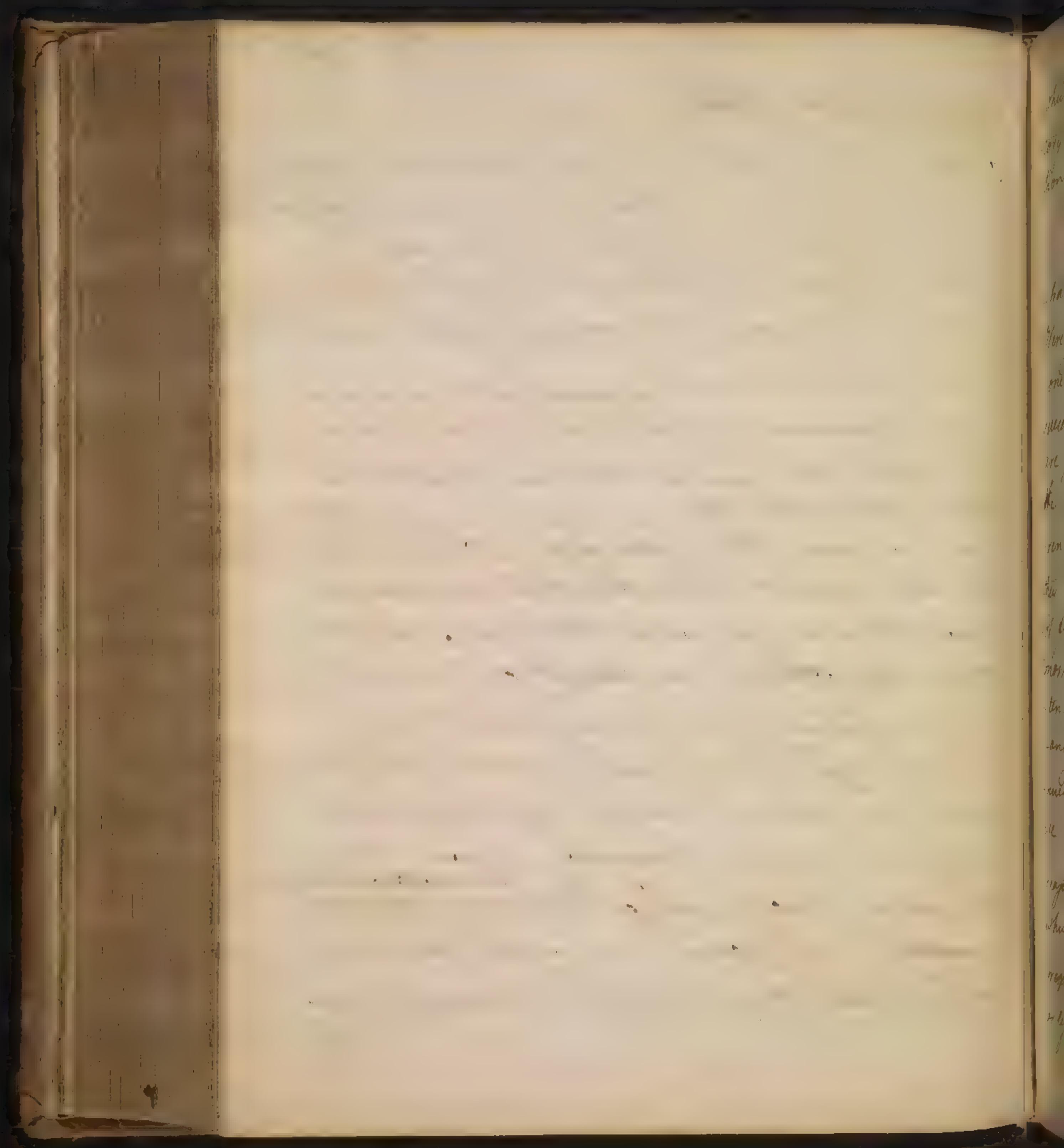
I. When the Collapse is moderate and the Excitement of some Parts increases from the Errand Impetus of the blood in the Brain: This will give a Deli-



## Delirium of the Phaeacetic kind.

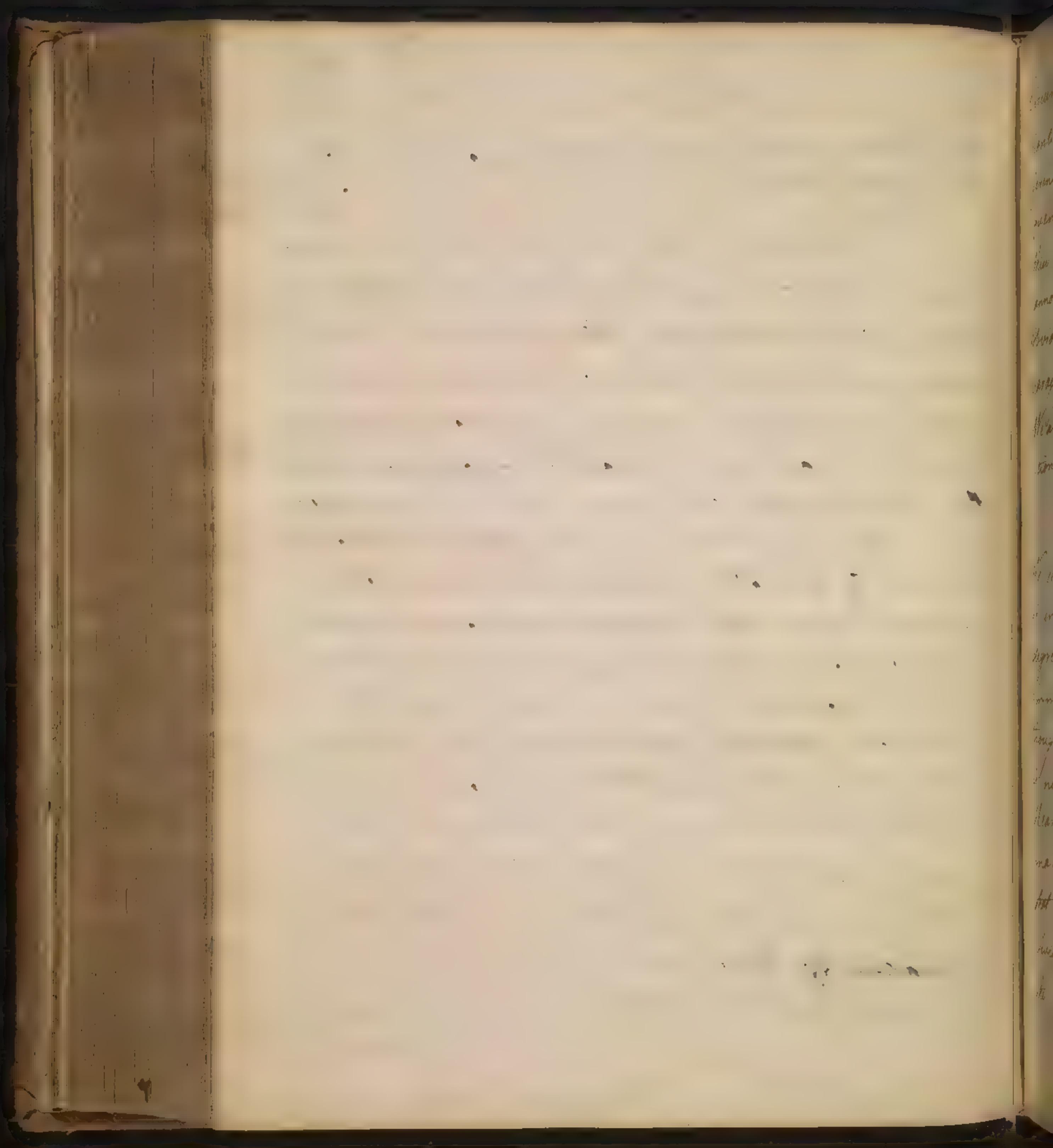
II. When the Excitement is not great, but considerable Causes of Collapse are in action - This gives a Delirium analogous to that which occurs in coming out of sleep, under the Influence of certain Stimuli; To which state of the System Pathologists have given the name of Typhomania.

This is a short Explanation of the general or leading Symptoms of Fever - and I think it serves to strengthen our general Doctrine - Upon this subject I could not help observing, with respect to the Coma of fevers, that Pathologists, as Han Swetler and others, refer it to the state of the Circulatory Organs - Whereas, if we attend to the time at which it occurs, viz, often in the cold fit of Fevers; and to its being frequently of a Transitory nature, I think we can only refer it to the state of Collapse of the Nervous System, not proceeding from any affection of the Lan- guiferous system, or Circulatory Organs - This is the notion I would give <sup>you</sup> of Delirium, <sup>as it most frequently occurs</sup> most frequently, and also <sup>of</sup> Coma - But at the same time I do not mean to exclude a third cause of Delirium, which



which may depend on the State of the Circulatory Organs within the Cranium, or local affection of the Brain.

Hitherto I have considered fever in the abstract, but am now to inquire into its differences. Here we add another Step to the Doctrine. I mentioned just now three states of fever, as distinct, and succeeding each other. But now I say that they all three are present, and subsist together in some degree thro' the whole course of a fever - and it is the different degrees of these, and the different proportions they bear to each other, that constitutes the difference of fever. Upon this I begin with considering the most obvious difference, viz, between the Intermittent and Continued - Here I observed that Physicians have generally reckoned two kinds of Continued fevers, the Remittent and Continual. But we denied the existence of the latter, both from reasoning and fact, and found that every fever which runs out to a number of days, consists of repeated Paroxysms, though these are more or less observable as distinct, which is the circumstance



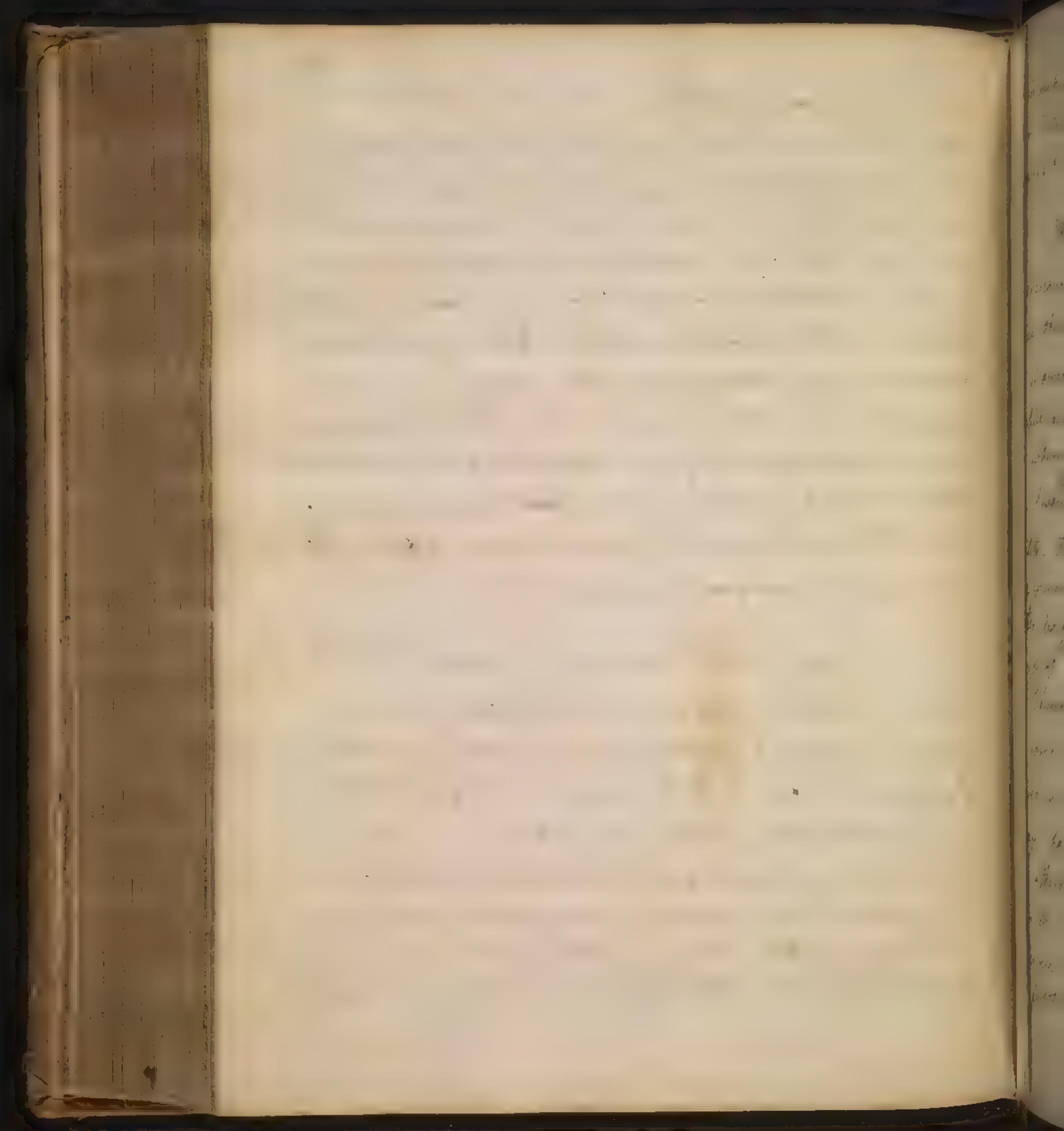
circumstance that distinguishes Intermittents and  
Continueds. Now what is it that constitutes this dif-  
ference? - He found it to depend on the more or less  
-quent Recurrence, or duration of Paroxysms: and that  
these depended on one another. That this is so, though we  
cannot tell how it comes to pass, is a fact, and an  
obvious fact; for it is well known that the longest  
paroxysms produce the shortest Interval, and vice versa.  
We are, then, to consider the cause of the longer dura-  
tion of Paroxysms -

In this I suspect I was not well understood.  
We see that when the action of the heart and arteries  
is increased by Exercise, it no sooner reaches a certain  
degree than a sweat flows - and if the Exercise  
immediately ceases, the sweat very soon ceases also,-  
though the Excretaries are thereby relaxed. But this  
is not the case in fever - Here the action of the  
Heart and arteries is increased in the hot fit, in like  
manner; but still no sweat flows - I conclude, therefore,  
that here is some opposition to the flowing of the  
sweat, viz, that there is still not fitting a strain on  
the extreme of puls, which resists the force of the in-  
creased



Increased action, and hinders the flow of the sweat -  
 Now if the Spasm and increased action were always in  
 the same proportion to each other, we should have but  
 one form of fever more or less - But this is not the  
 case; for there are two separate Causes of the long  
 duration of Paroxysms, viz. Excess of Spasm, or a want  
 of force in the Increased action - either of which will  
 occasion a long Paroxysm - It is therefore on the  
 proportion of these to each other that the duration  
 of every paroxysm of fever depends - and as the dura-  
 tion is owing to the Excess of the one, or defect of  
 the other, a continued fever receives different forms.  
 There are the general Proportions -

But we endeavoured to defend the par-  
 ticular Causes, wherein the duration was owing  
 to Excess of Spasm, or the Increased action not being  
 of sufficient force - With regard to the first Case, we  
 concluded that the Spasm was obtrusive, or in Excess,  
 where it was formed on a Diathesis Phlogistica, we  
 said confined in an increased Contractility of the arteries.  
 as a proof of this I observe, that we often see the causes  
 of fever combined with the causes of Phlogistic diathesis,  
 and



and in such cases a continued fever is formed - thus, when Intermittents are changed into continued fevers, it is owing to causes which give Phlogistic diathesis.

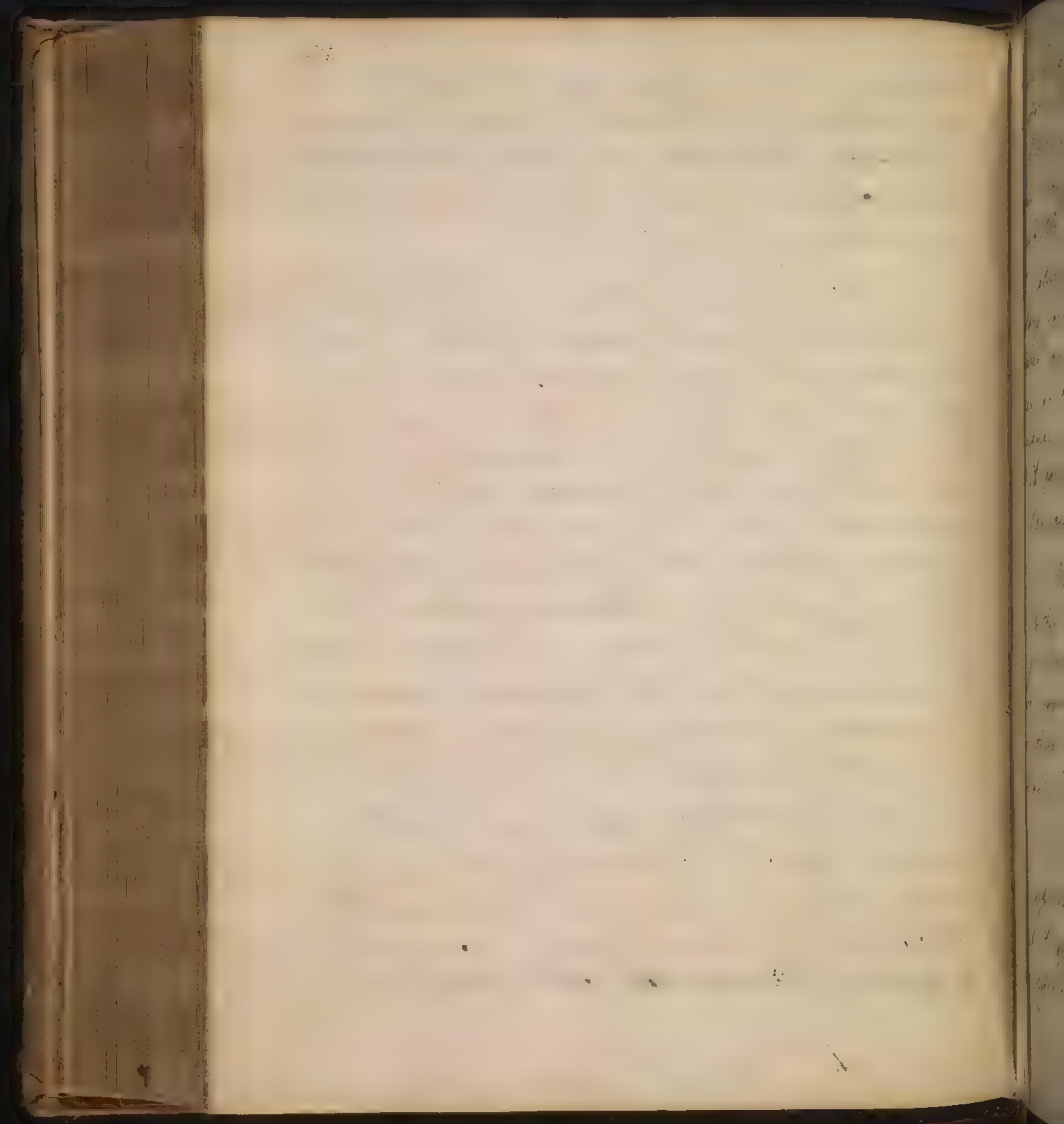
The other case is, where the Spasm being given, the increased action is in too small a degree, so that from thence the Paroxysm is allowed to continue longer - This is owing to Excess of debility, from the powerful Sedative action of the causes of fever. We see instances of this where fevers of the longest duration are generated, and, I would say, dependant on a state of extreme debility - Therefore we refer the long duration of Paroxysms in all fevers to one or other of these causes, either Excess of Spasm from Phlogistic Diathesis, or Excess of Debility from the strong Sedative action of the causes of fever - and therefore it is evident, that in some cases Venegation may have a continued Fever, in others increase it - In some cases evacuations may change a continued fever into an Intermittent, in others convert an Intermittent into a low continued. This View of the Matter not only gives the difference between the Intermittent and continued form of fevers; but also reduces continued fevers to two kinds.

It



It brings us into the common distinction of continued fevers, established by Physicians, into the Inflammatory and Nervous kinds; the first where a Phlogistic Diathesis is present, the other where Symptoms of debility prevail.

Thus therefore the common Distinction of fevers now generally fallen into by Physicians, from Observation, is very consistent with our Doctrine. But in the next place, that we might examine into the matter more particularly, we took a view of the principal symptoms of both Inflammatory and Nervous Fevers; and found that those of the former, together with its causes, all concurred to make us refer it to a Phlogistic diathesis - Those of the latter, with its causes, to a Syrup of Debility. The only difficulty is, that, though a distinct and separate concourse of symptoms, often mark out the Inflammatory and Nervous Fevers by themselves; yet they are often mixed, viz, it is common that the Inflammatory form appears in the beginning of a fever, but it ends in the Nervous - Such a form of fever, a combination of the two, Physicians have often described, and I

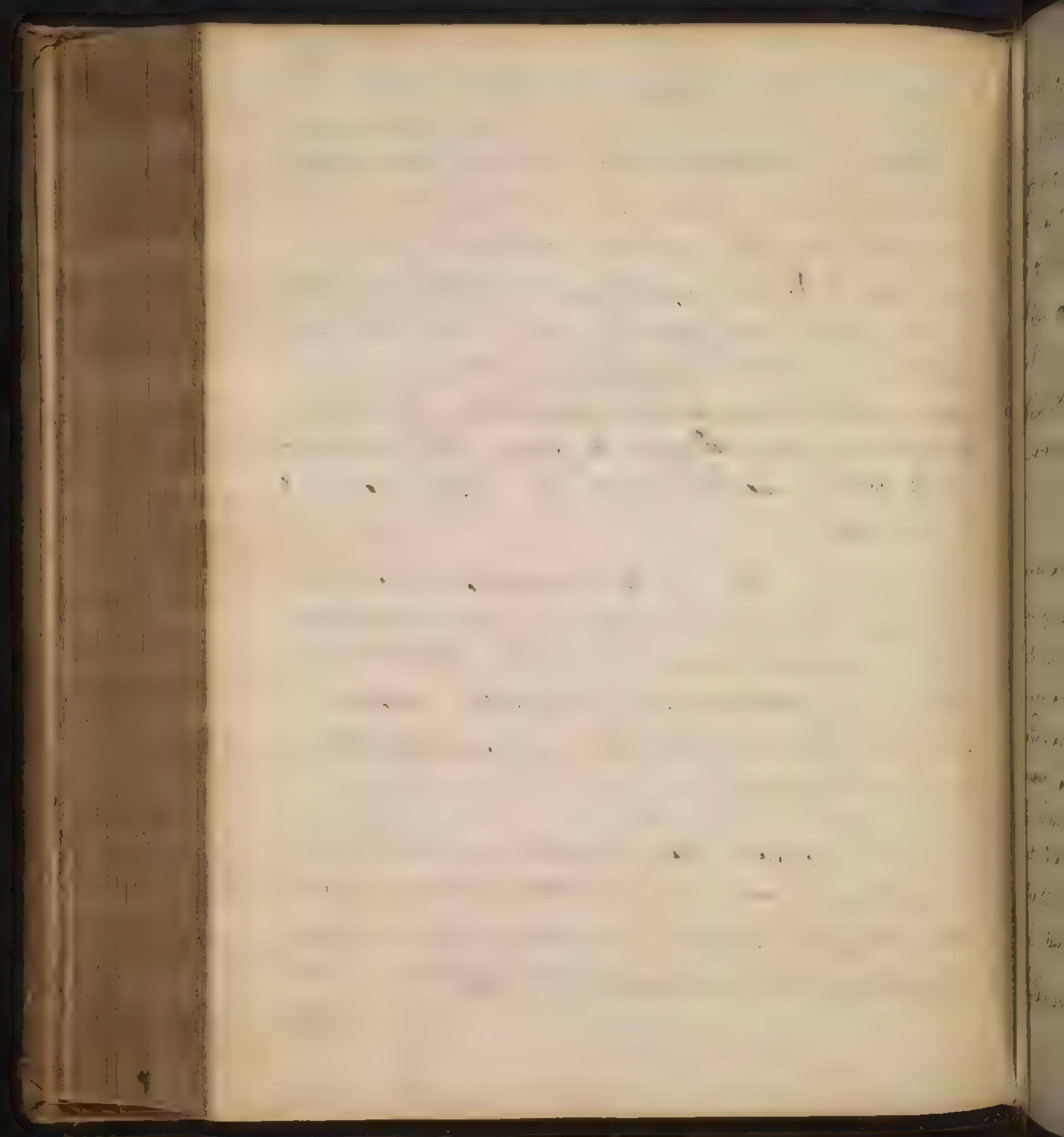


803.

I have endeavoured to explain it - I think it depends on this, that when the Fever comes on under Circumstances of Phlogistic Diathesis, or its Causes and State of Diathesis Phlogistica concur, these will operate more remarkably at first, specially while the System is in full natural Vigour, and to give the Fever an Inflammatory form in the beginning - But when the Causes of fever come to be multiplied, and to acquire more power, or the System further debilitated from the Continuance of the Disease, the Fever still continues, but its form is changed from the Inflammatory into the Nervous -

Thus, then, I have adapted our Doctrine also to this very common form of fever, where the two fundamental forms are mixed. And to this I have appropriated the name of Synochus - and there are three Genera, and there are only these three of Continued fevers -

So far I have applied my Doctrine to the different forms, or distinction of Continued fevers. But it applies further, to Intermittents, and gives the different forms and distinction of them - The diffe

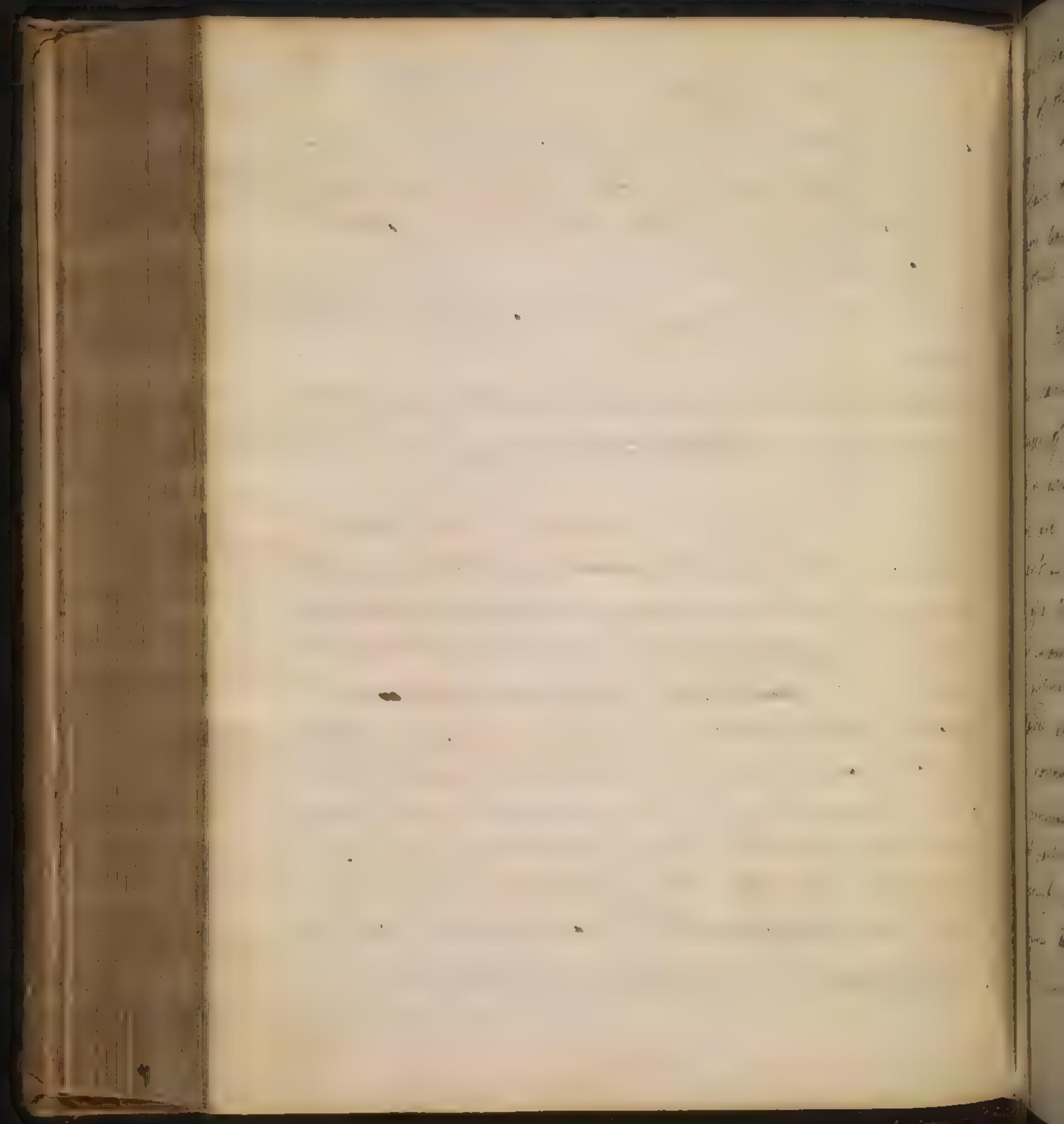


204

difference of their ~~form~~<sup>type</sup> is not of much importance. But there is another distinction which we mean to attend to here; that is, as they are liable to interchange with continued fevers. In this view we have two cases of Intermittent.

1. Where the fever begins continued, but ends Intermittent.
2. Where it begins distinctly Intermittent, and afterwards runs into the continued form -

The first can I explain in the same manner as the Synochus above mentioned, viz, that cause of Inflammation concur with causes of Intermittents in the beginning; - but that afterwards the former are diminished, while the latter are increased, and the fever consequently becomes either Nervous or a distinct Intermittent. And as to the other case, where the change is from an Intermittent to a continued, I say it is often owing to bad Practice, viz, the use of Stimulent Meridians: and here therefore there is an accessory cause of Inflammation. But the other is by far the most

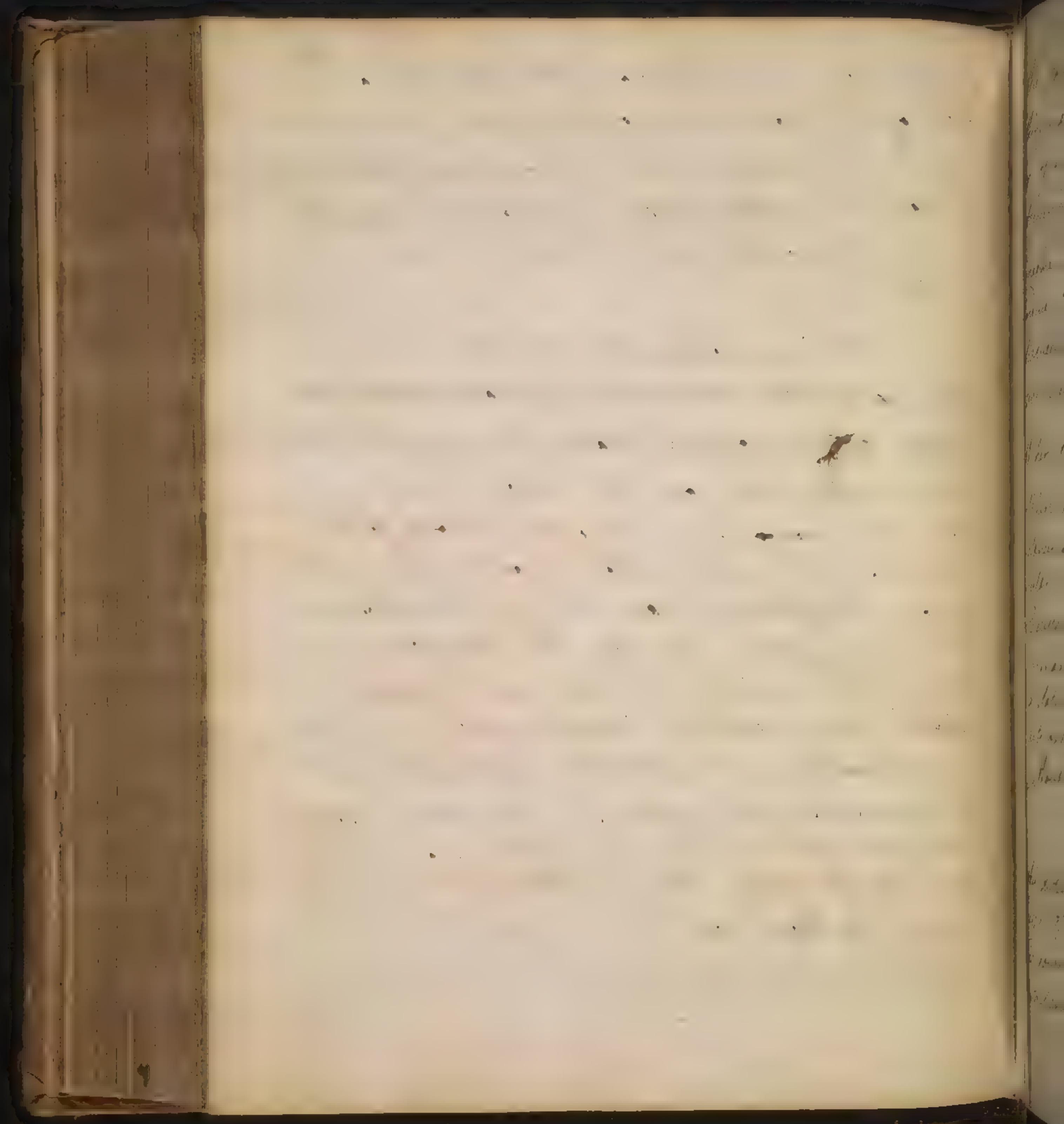


205.

frequent case - and I mention that it is the natural effect of the continuance of these fevers, though they being in the Continued and Inflammatory forms; for the cause to multiply itself, or increase in strength, so as more commonly to give the form of an Intermittent.

Having provided thus far, there is only one other particular to be noted, viz, that though the causes of fever (only as I have hitherto considered them) act, in exciting fever, on the Nervous System - yet there are many cases where they act only as ferment on the mass of Blood, so as to induce more or less of a Putrefaction (we dare not say Putridity, because it is incompatible with life) This therefore gives the distinction which Physicians have so generally followed, and at all times thought necessary, into Putrid and nonputrid - The antiquits indeed speak with no precision on this subject, and the Moderns, for the most part, have not done much better, from staining too much to follow them - I think it should be confined to those cases where a putrid ferment is introduced, and acts on the fluids, so as to induce a putrefaction -

G.

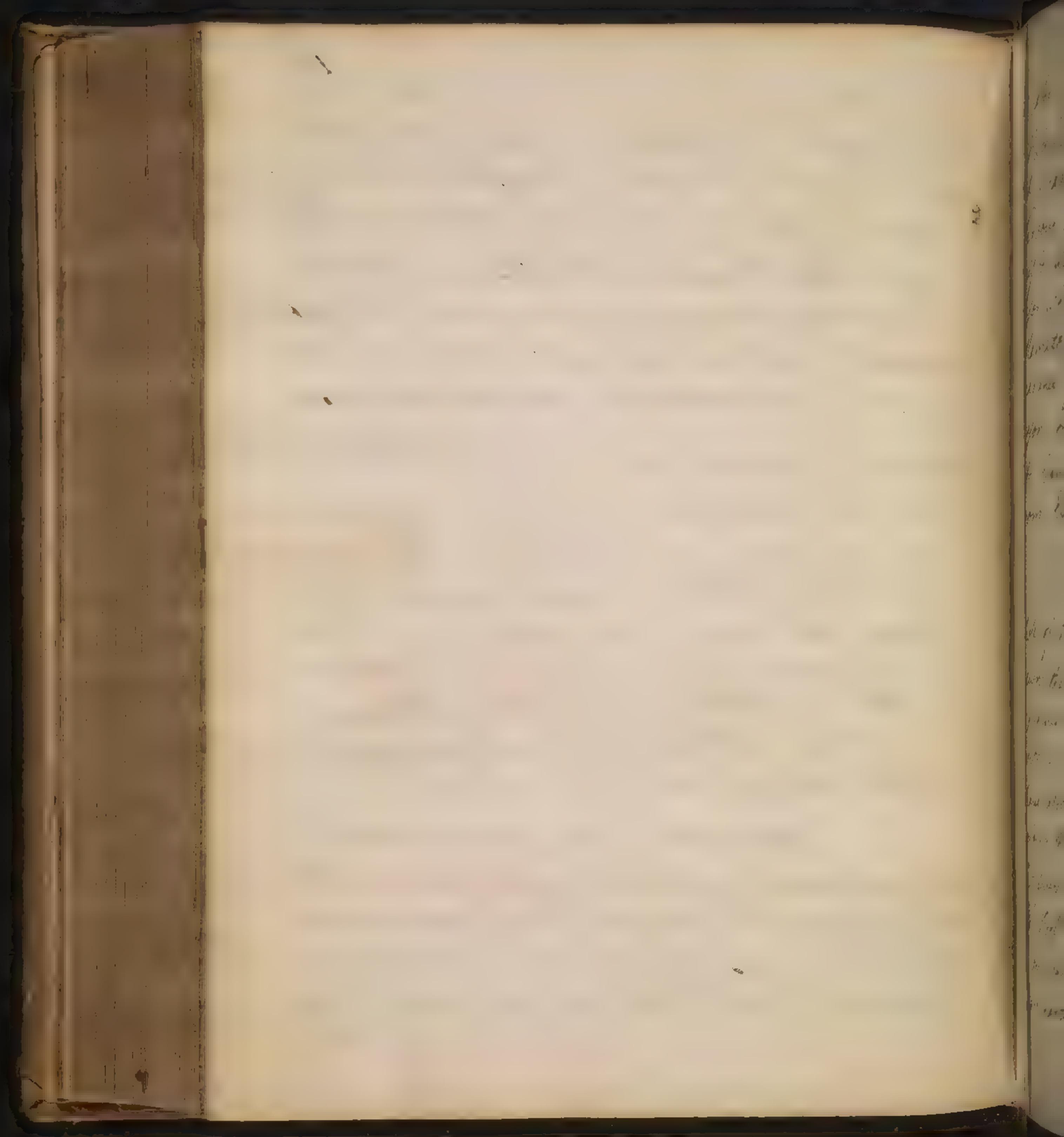


of this state of fever also I have given you defining  
wither marks. But though I spoke of the introduction  
of a ferment, I should not confine the state of  
Putrefaction absolutely to the cause where it occurs; for  
I imagine that the actions of the Plethora itself tend  
to induce Putrefaction, independant of Extraneous matter  
introduced & act as a ferment. There may then  
be two causes of Putrefaction, more especially in fevers.

1. When it is owing to a putrid ferment introduced.
2. Where the Putrefaction is induced from the circum-  
stances of heat, greater Velocity of the Blood, parti-  
cular state of the Tone of the Vessels, or other  
causes that may favour Putrefaction, being more  
remarkably associated in fevers, there may then be  
a state of Putrefaction induced, though the cause  
acts only on the Nervous system, and excites a fever  
without acting on the fluids as a ferment.

It was not necessary, however, to attend  
to this distinction as the origin of Putrefaction in the  
fluids, if we attend diligently to the marks before  
laid down, as indicating the presence of a state of  
Putrefaction. But I took notice of it chiefly for

the



the value of another argument, viz, that is the effect of Putrefaction to produce a poison, which is a powerful Sedative, and has a deleterious action on the Nervous System - and as the state of fever tends of itself to induce a degree of Putrefaction, this is another reason why Fevers, though they begin with the Inflammatory form, often in the end put on the appearance of a nervous fever - and also for the same reason Intermittents are often in the end converted into Continueds of the same pernicious nature, viz, from Excess of Debility induced by Putrefaction.

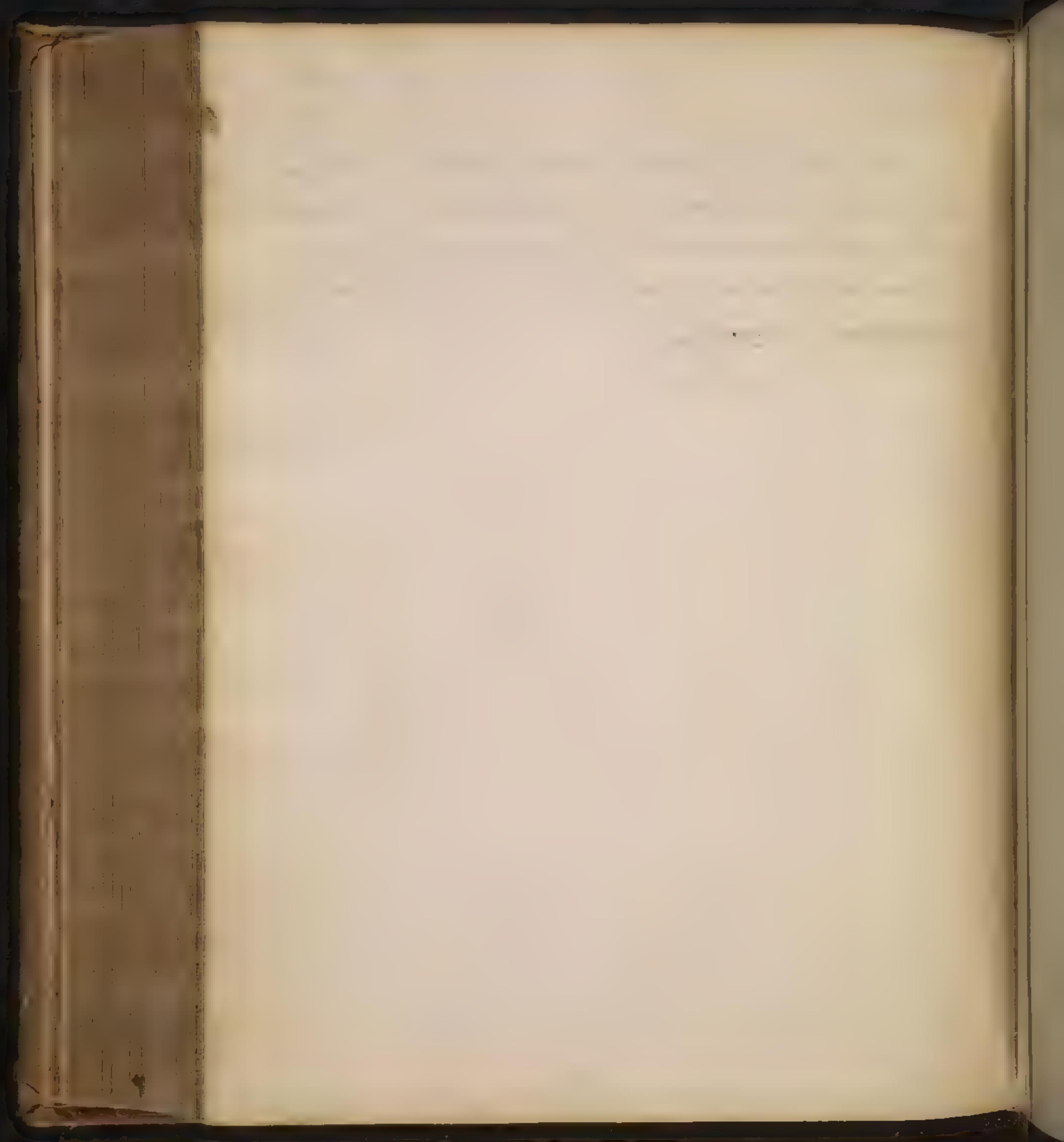
I have therefore now carried you through the whole of the principal differences of fevers; and have shewn them to be agreeable to our System - I have explained the most natural Circumstances of fever on our Doctrine; and we find that the whole tends to confirm it. I have also shewn you other nearer distinctions of fever, according to its Complications; and I have made some remarks on fevers as combined with Phlegmatis, Splanchnitis, and Profluvia, in order, in such cases, to distinguish which is the Idiopathic disease. But these cannot be fully and more particularly considered till we have spoke of their

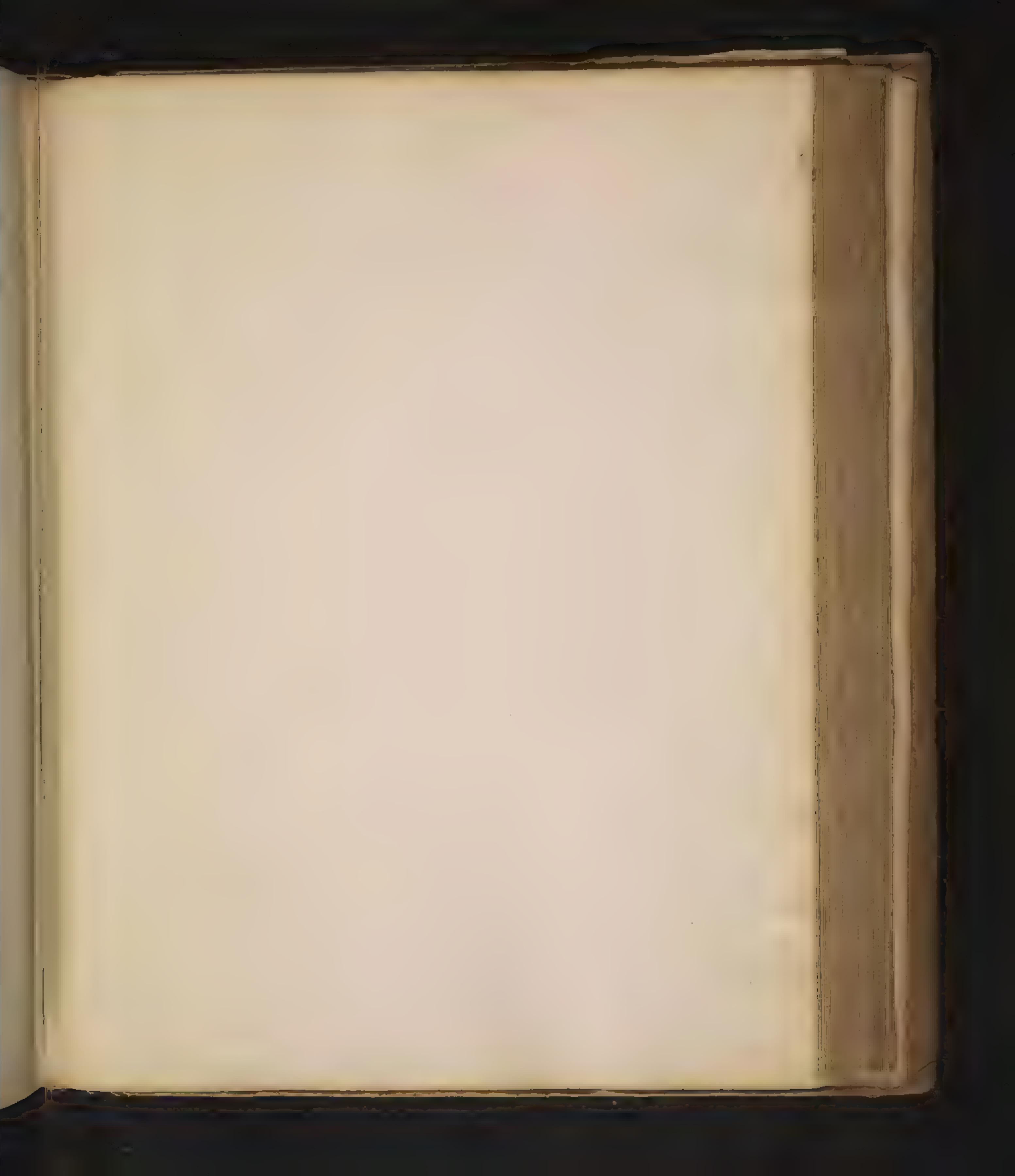
causes



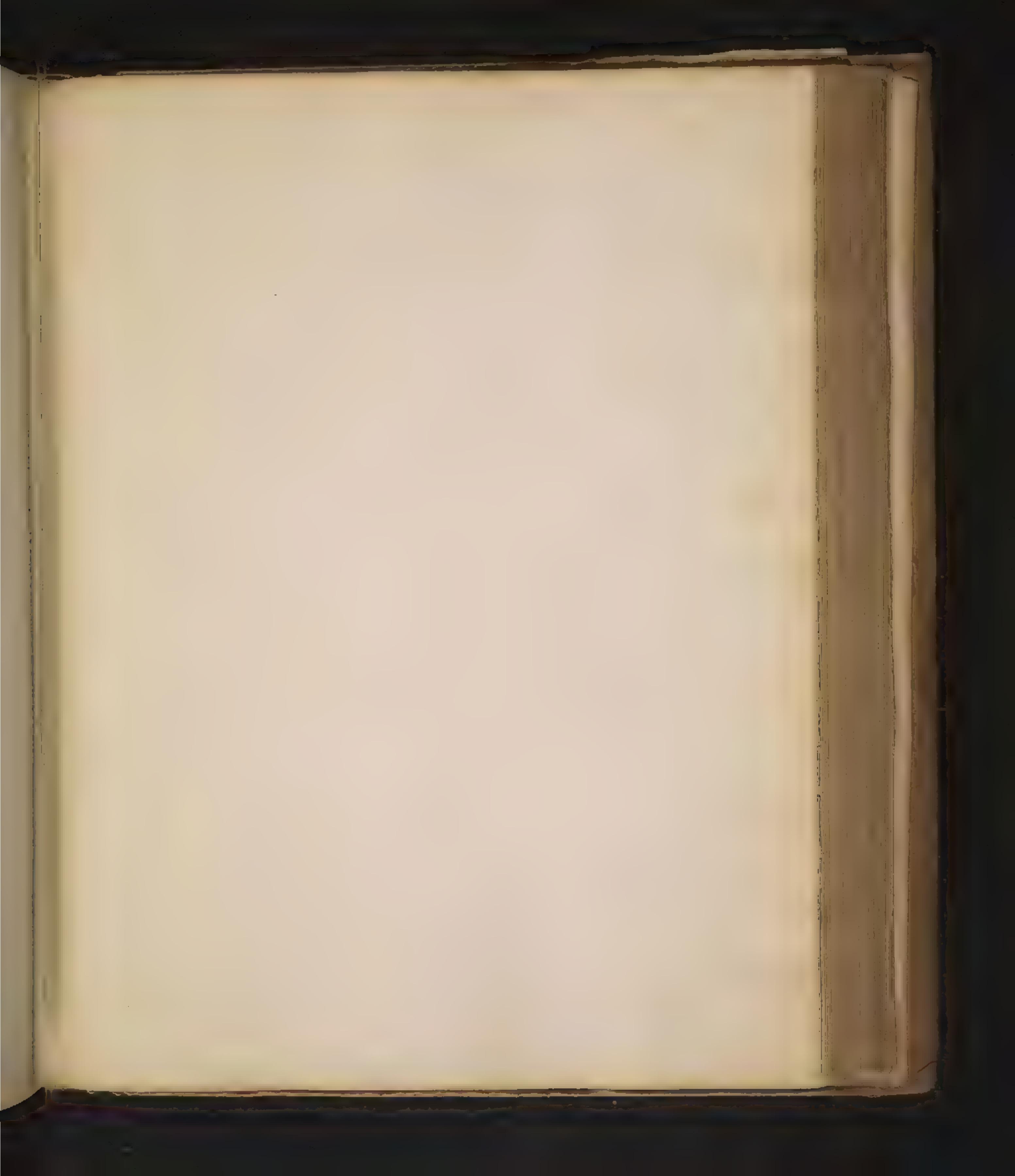
Orders.

This, then, finishes our general Doctrine - We shall next proceed to consider them more particularly, and to speak of their differences as a matter of fact, in which we shall ascertain the species - Here then we shall begin our *Methodica Nosologia*

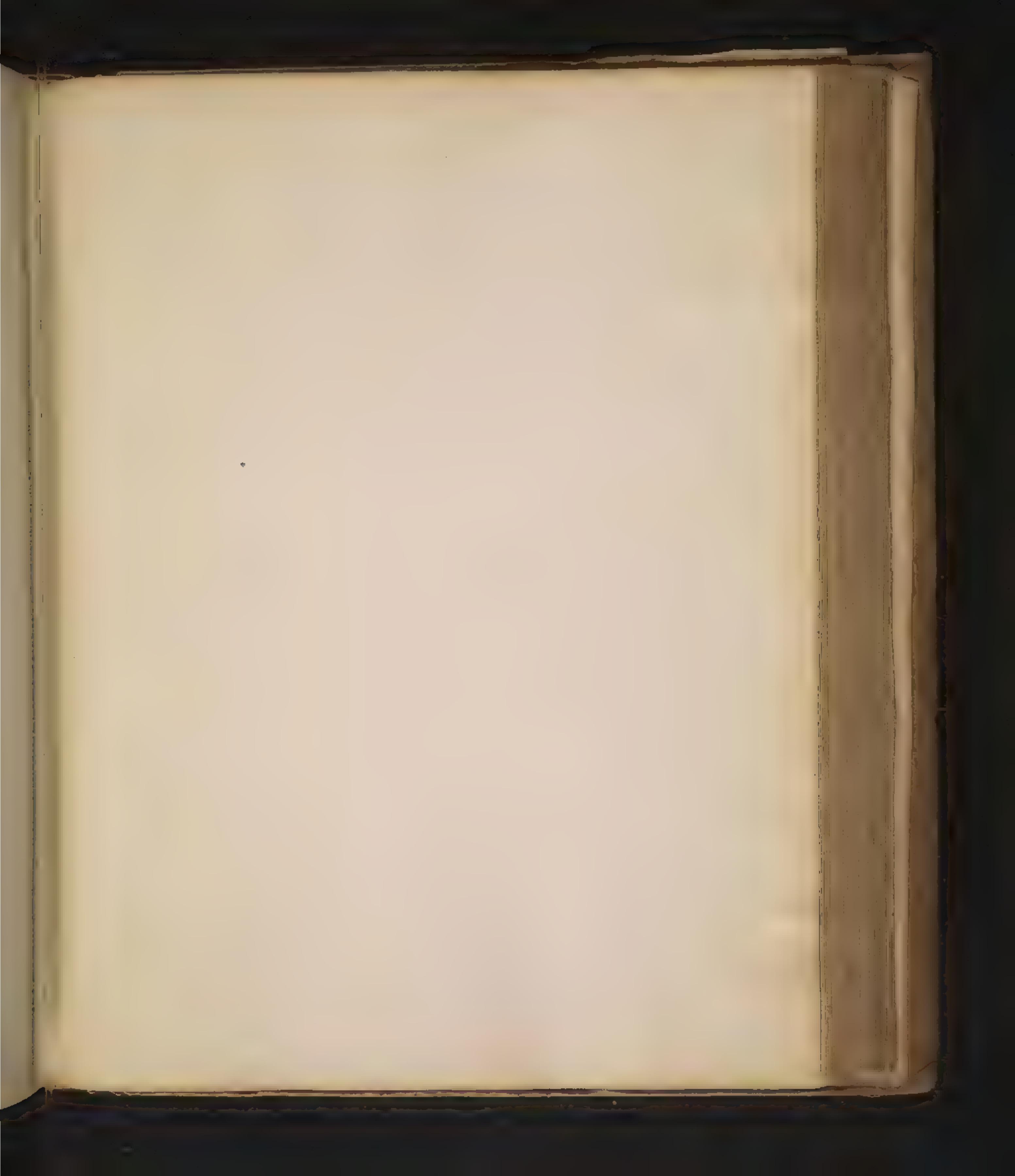








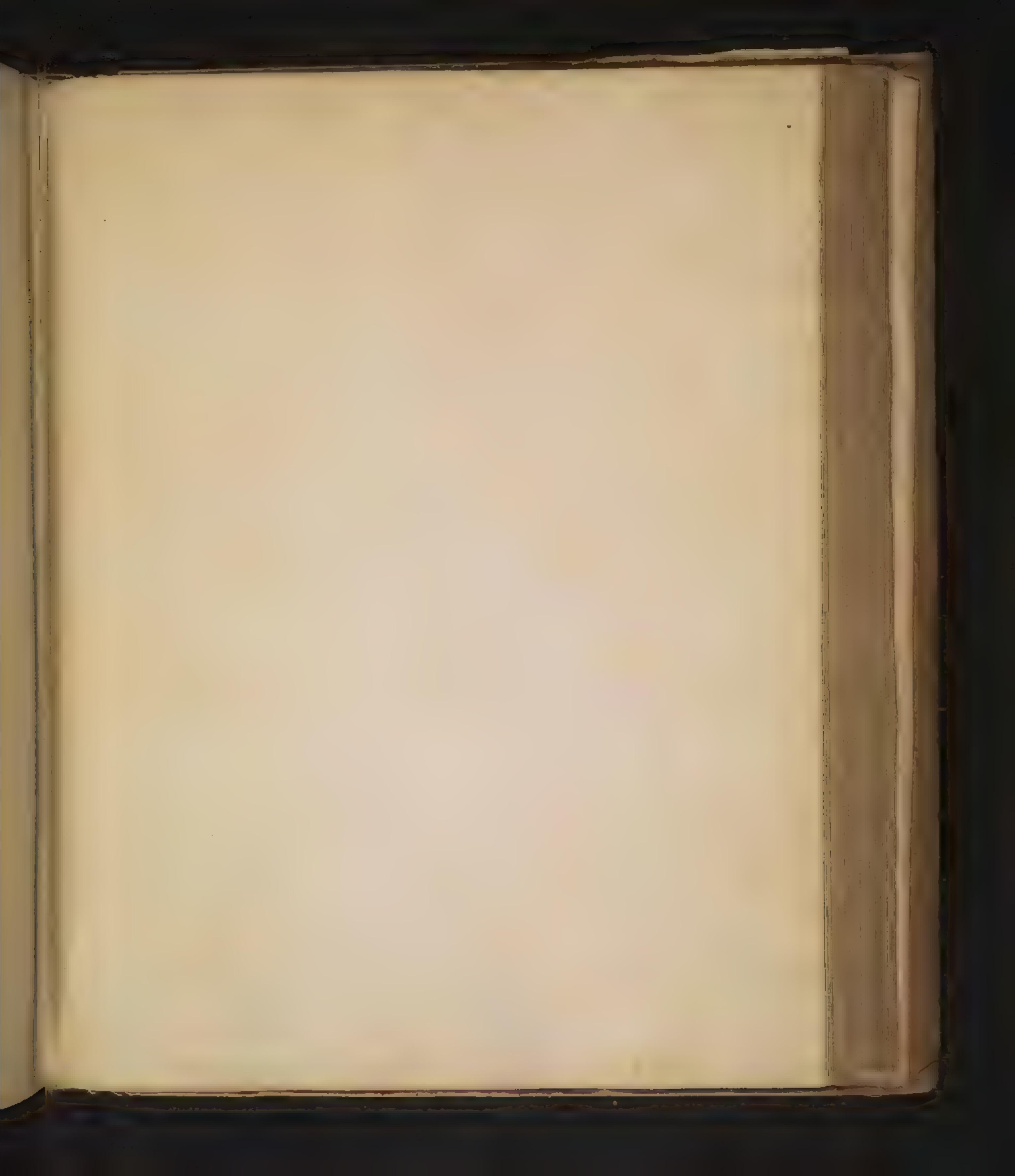




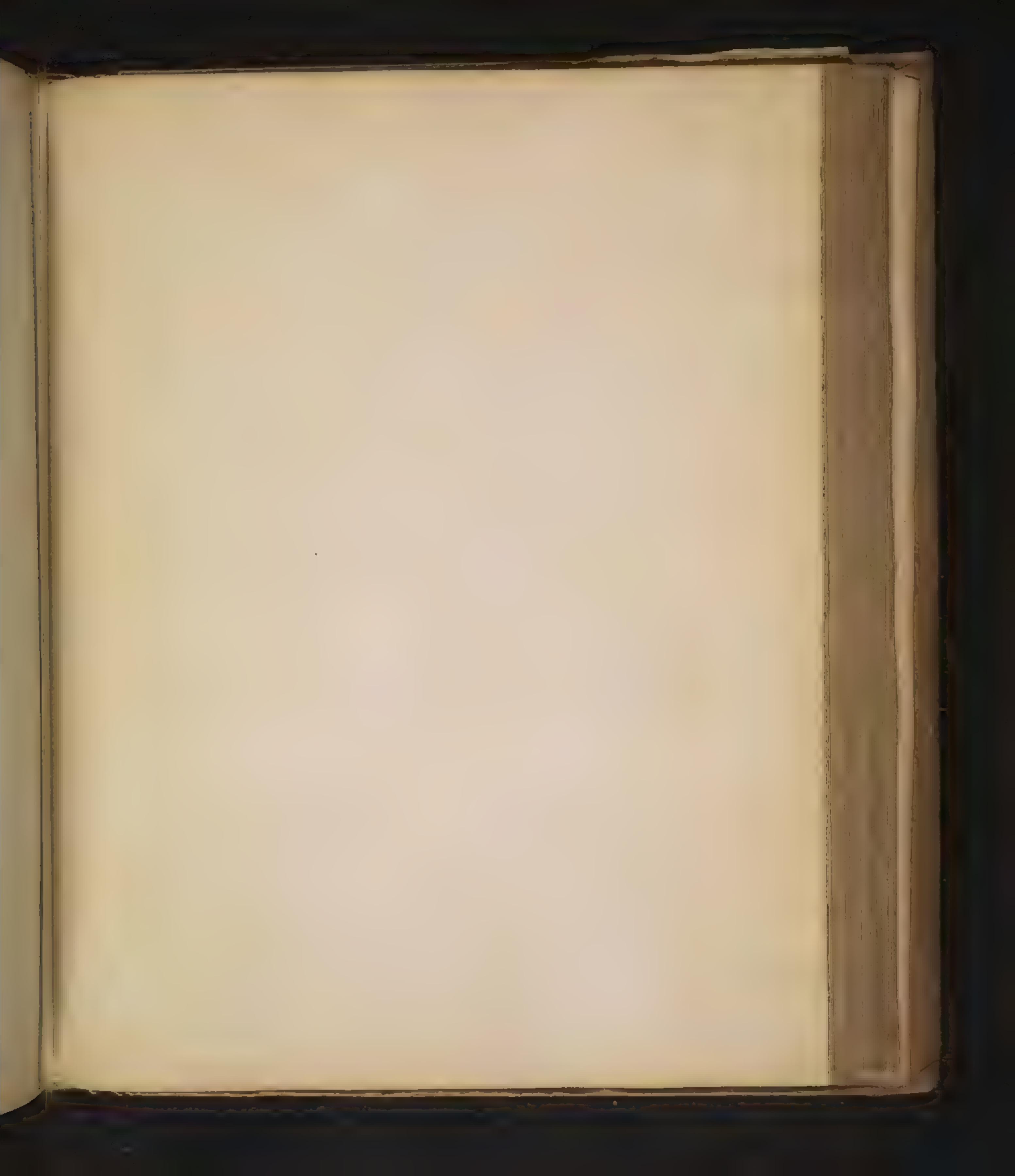




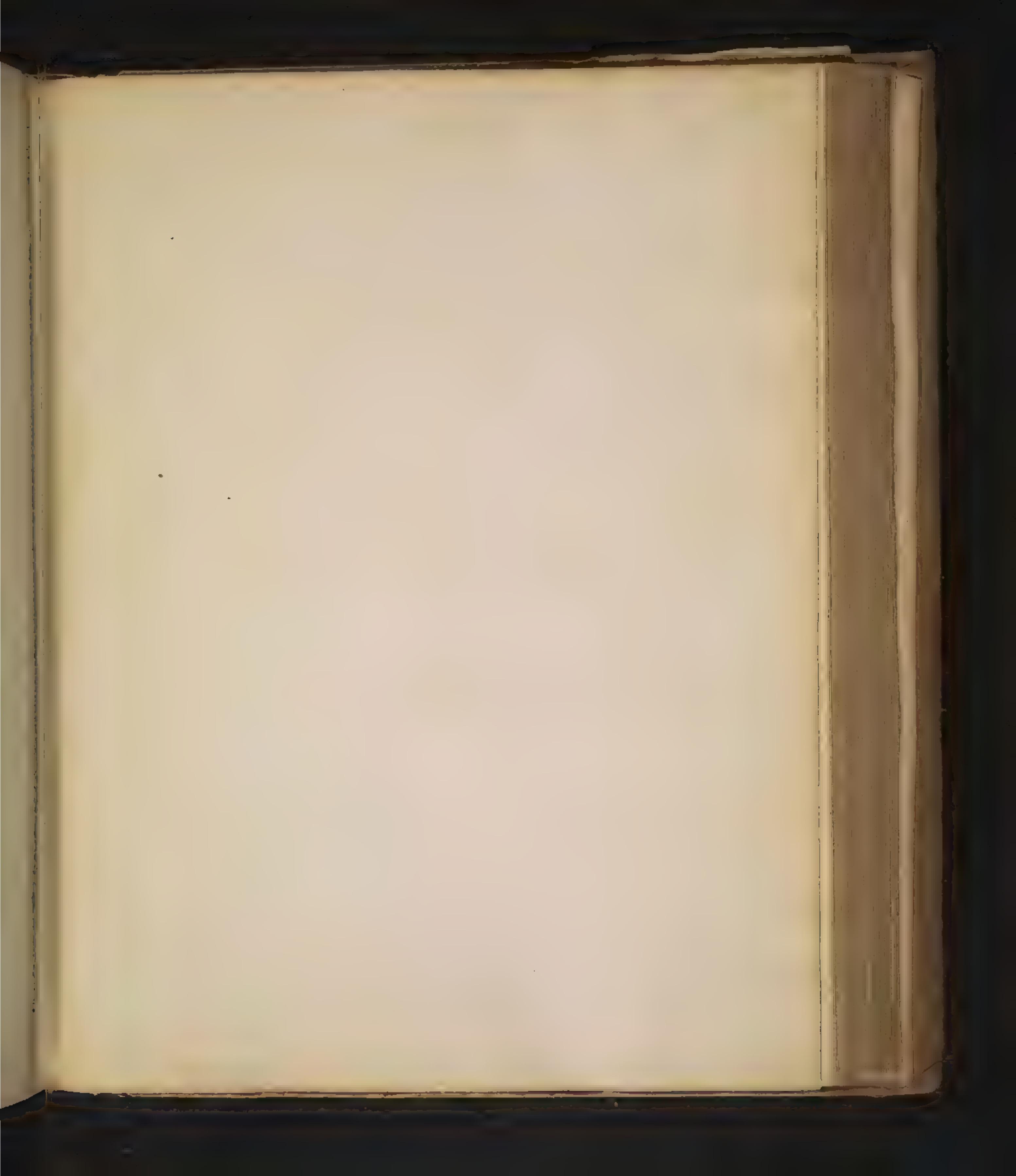








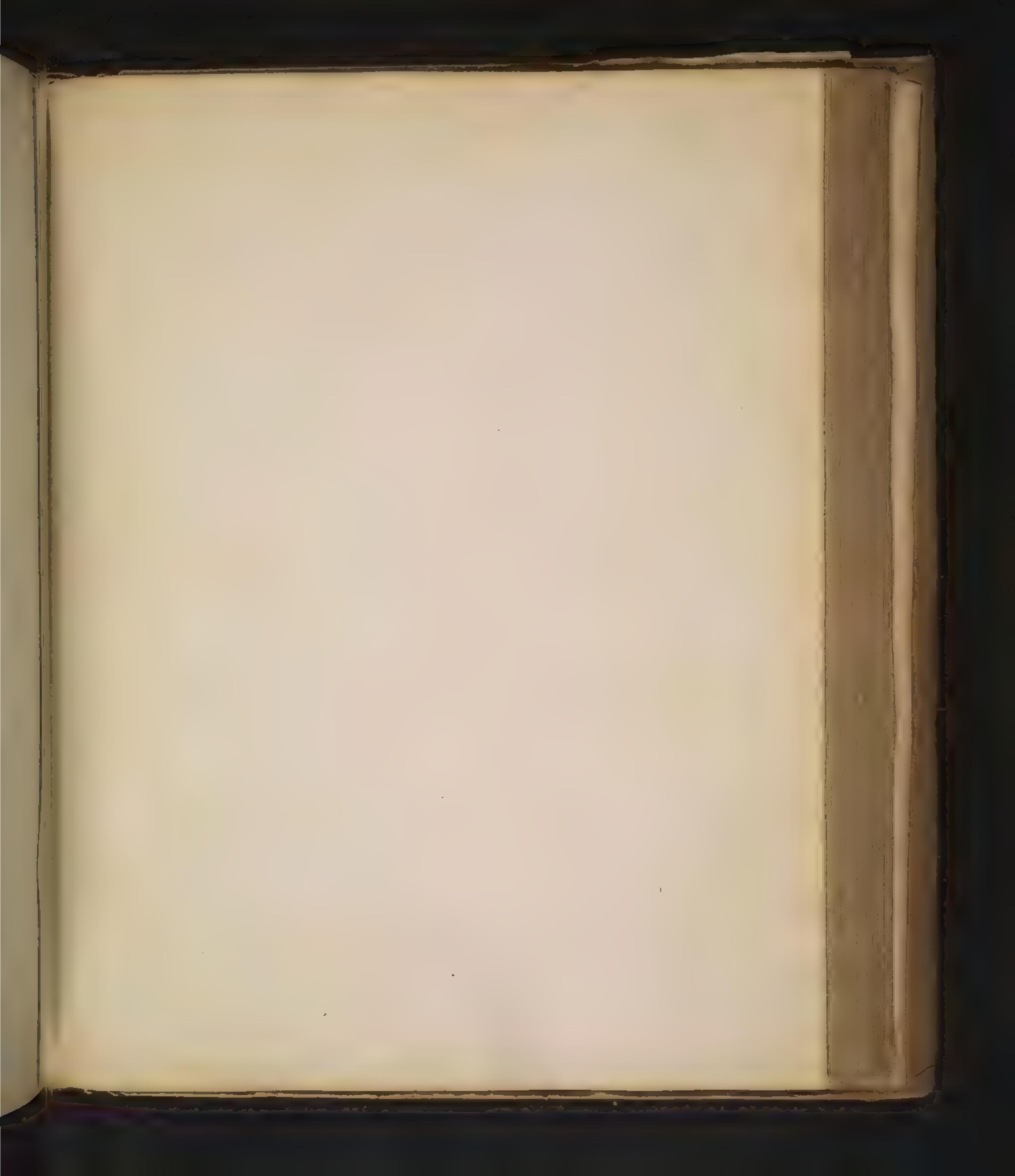


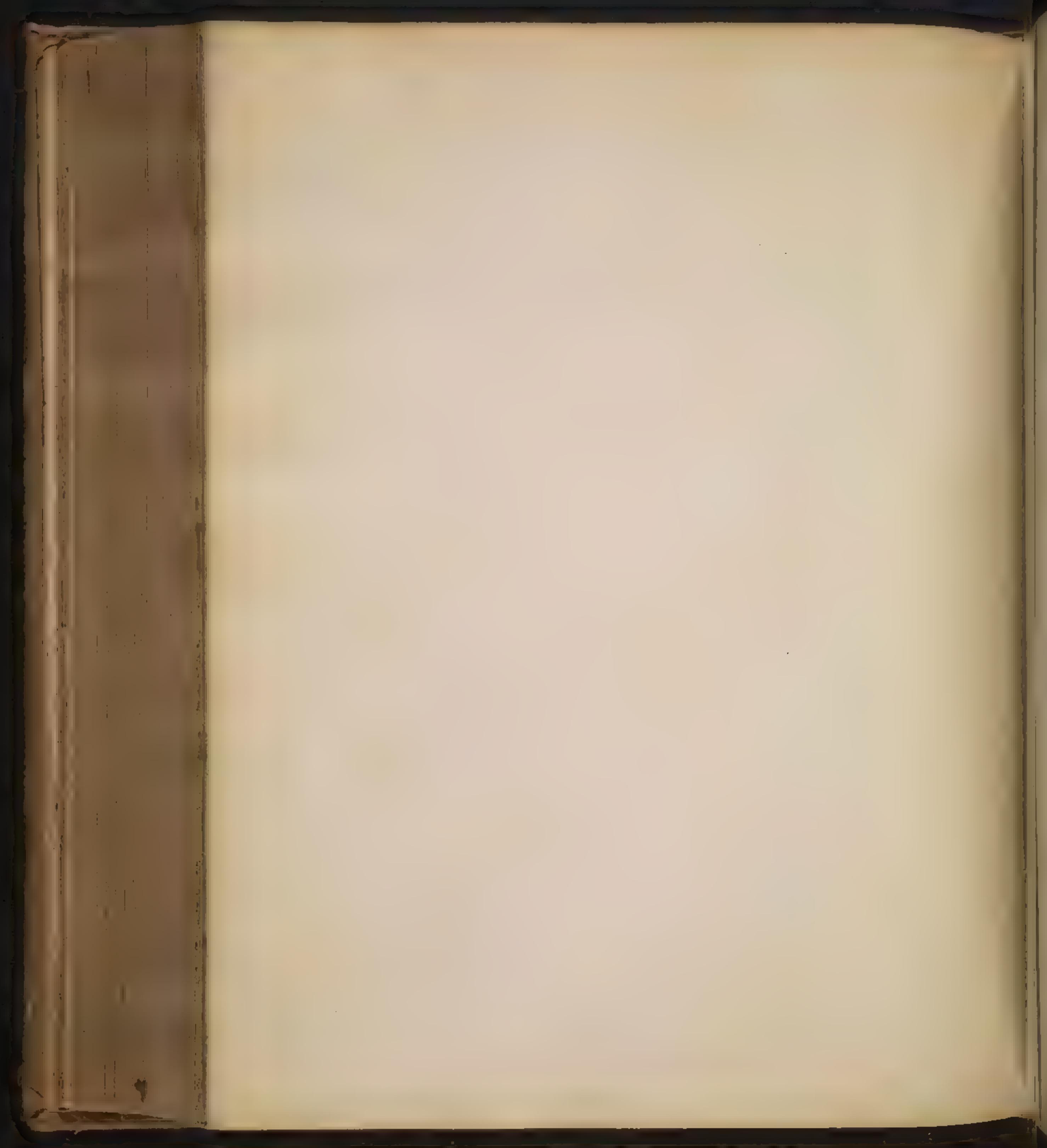


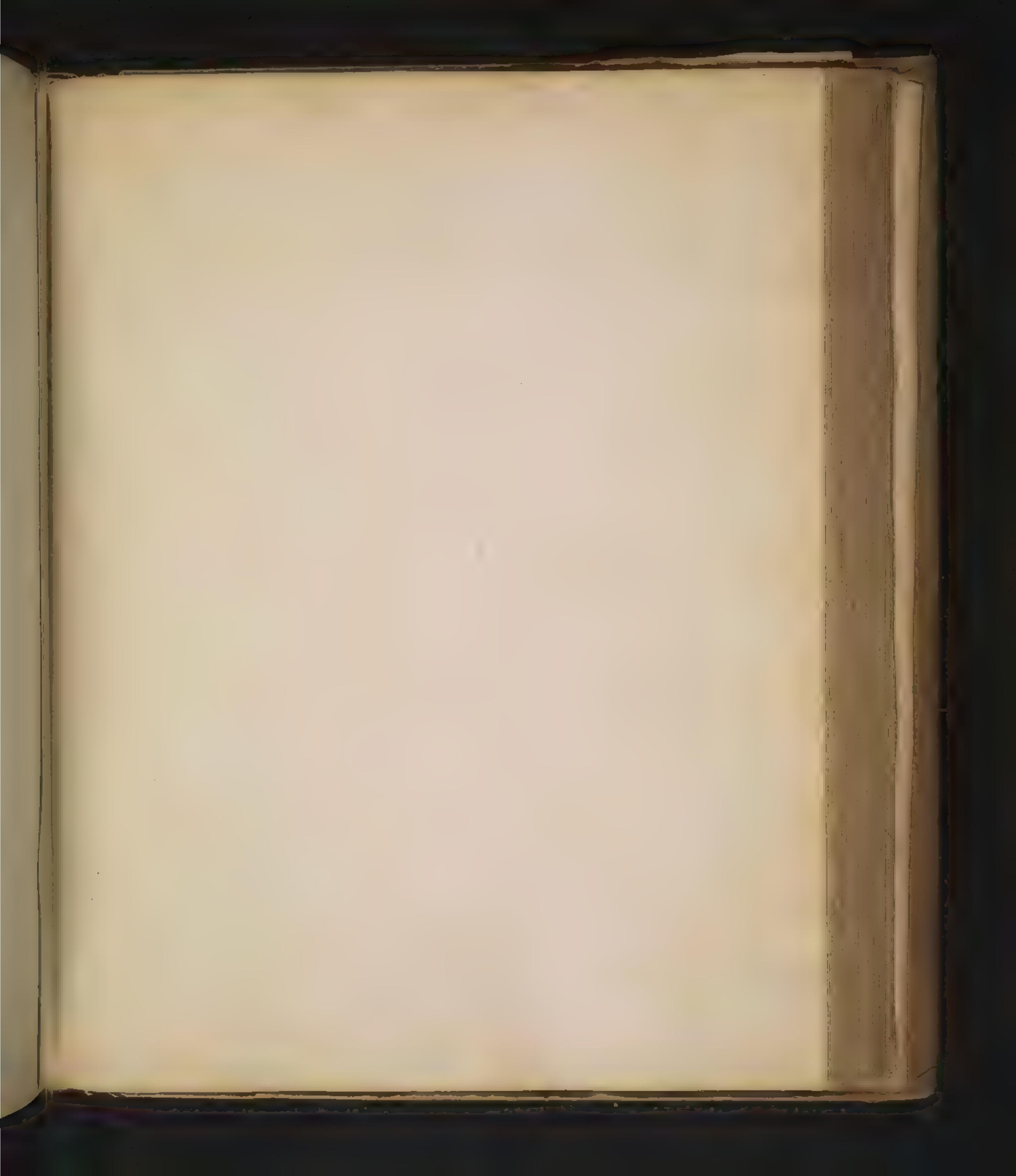


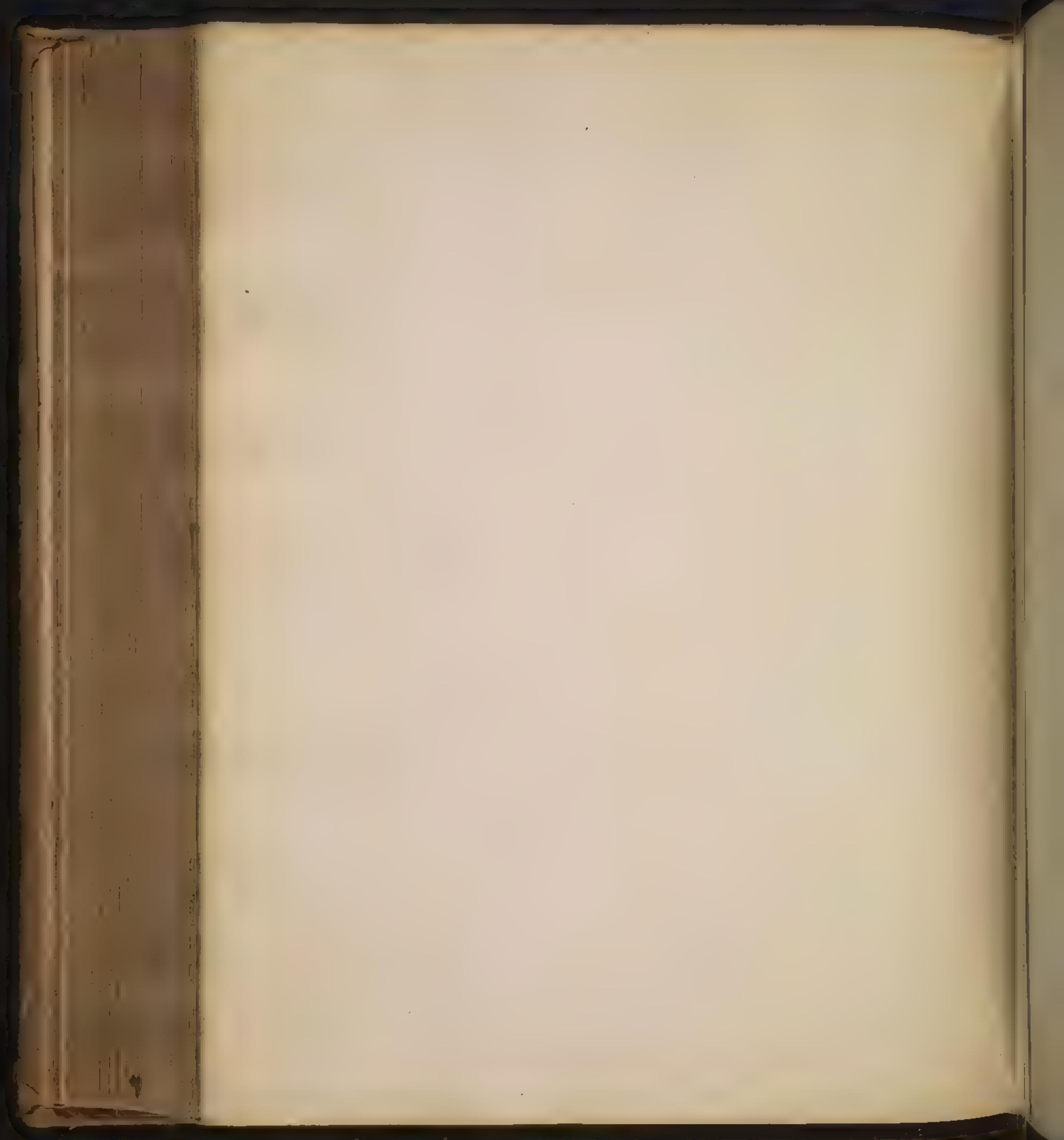


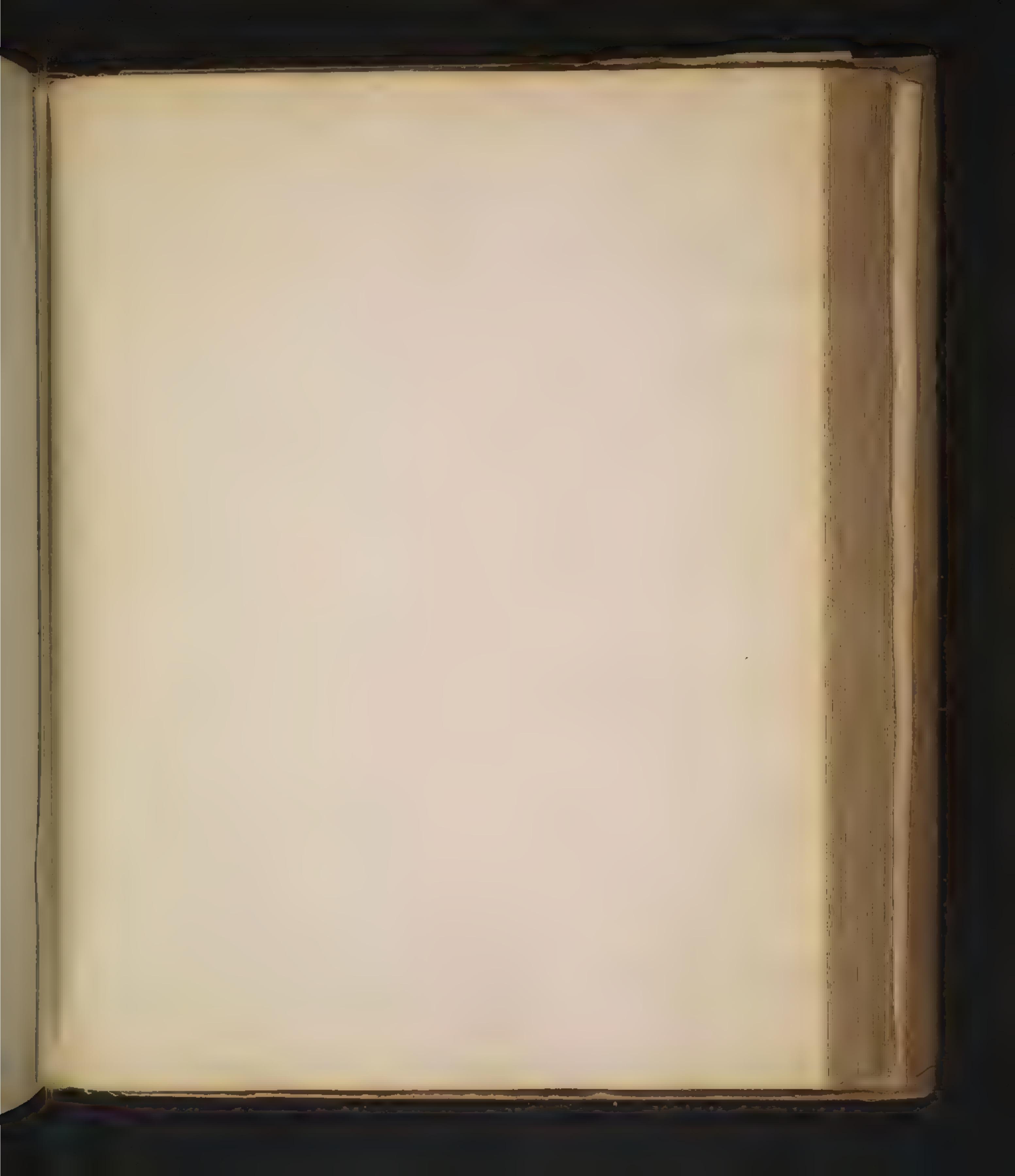






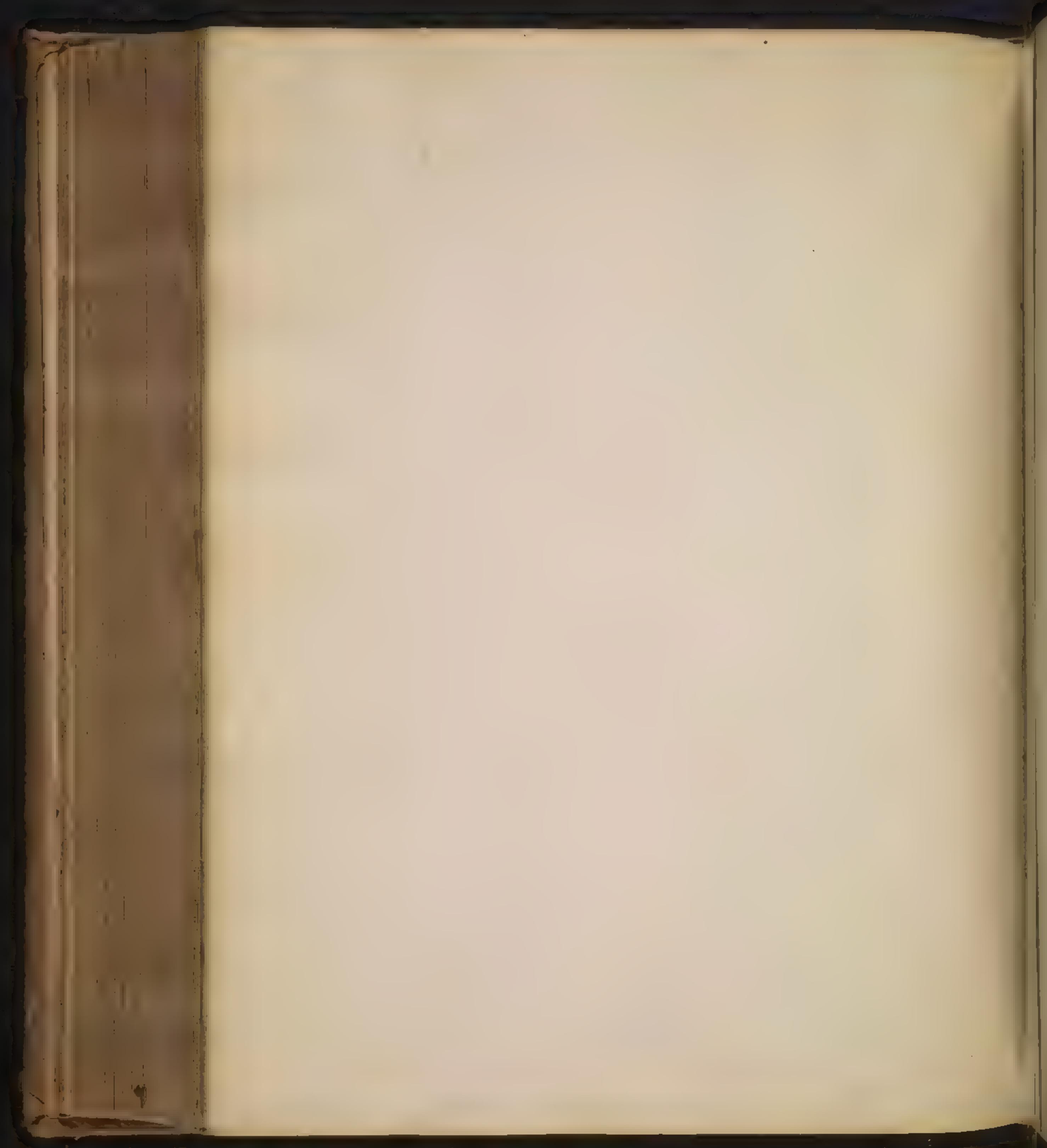








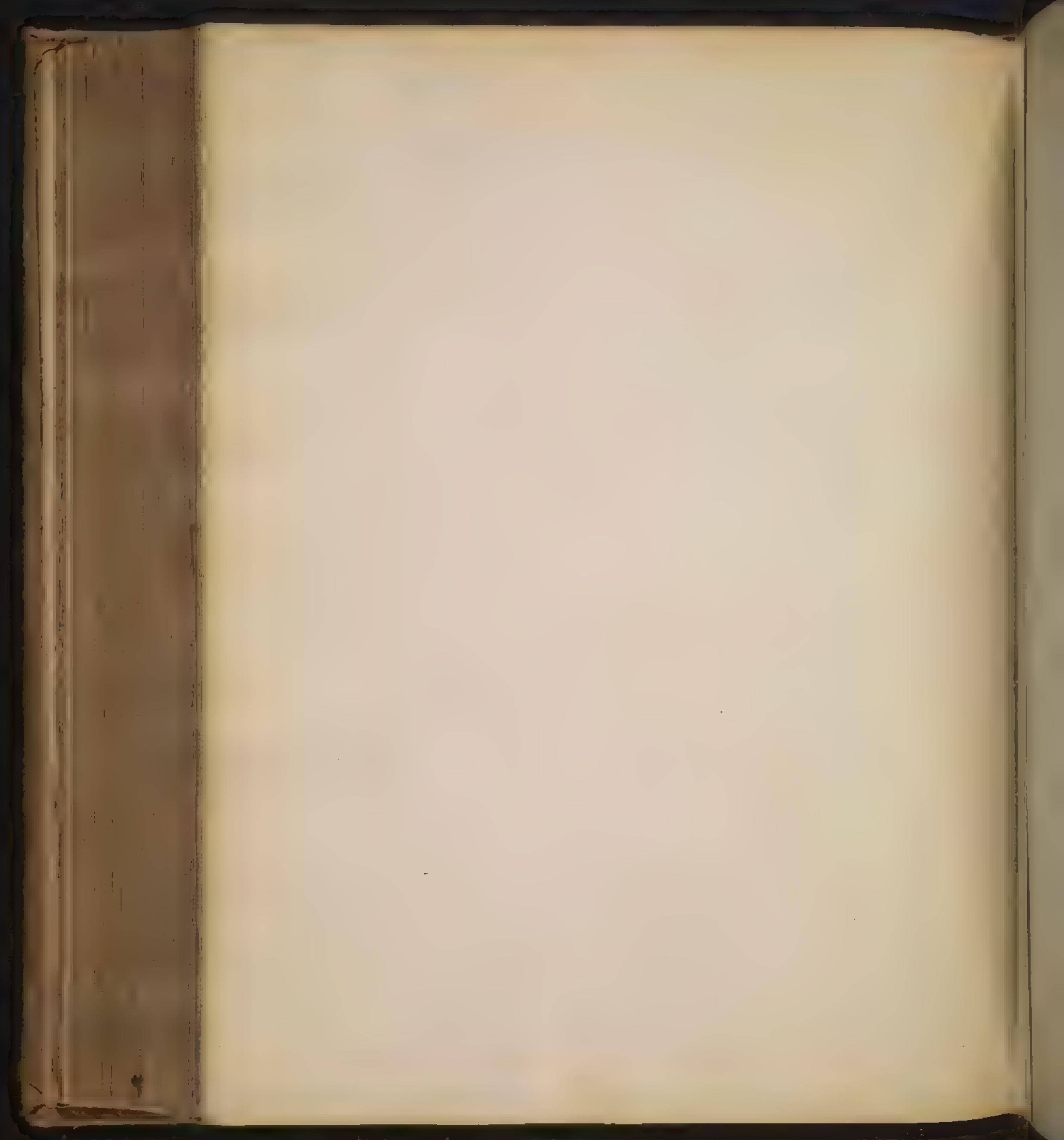














































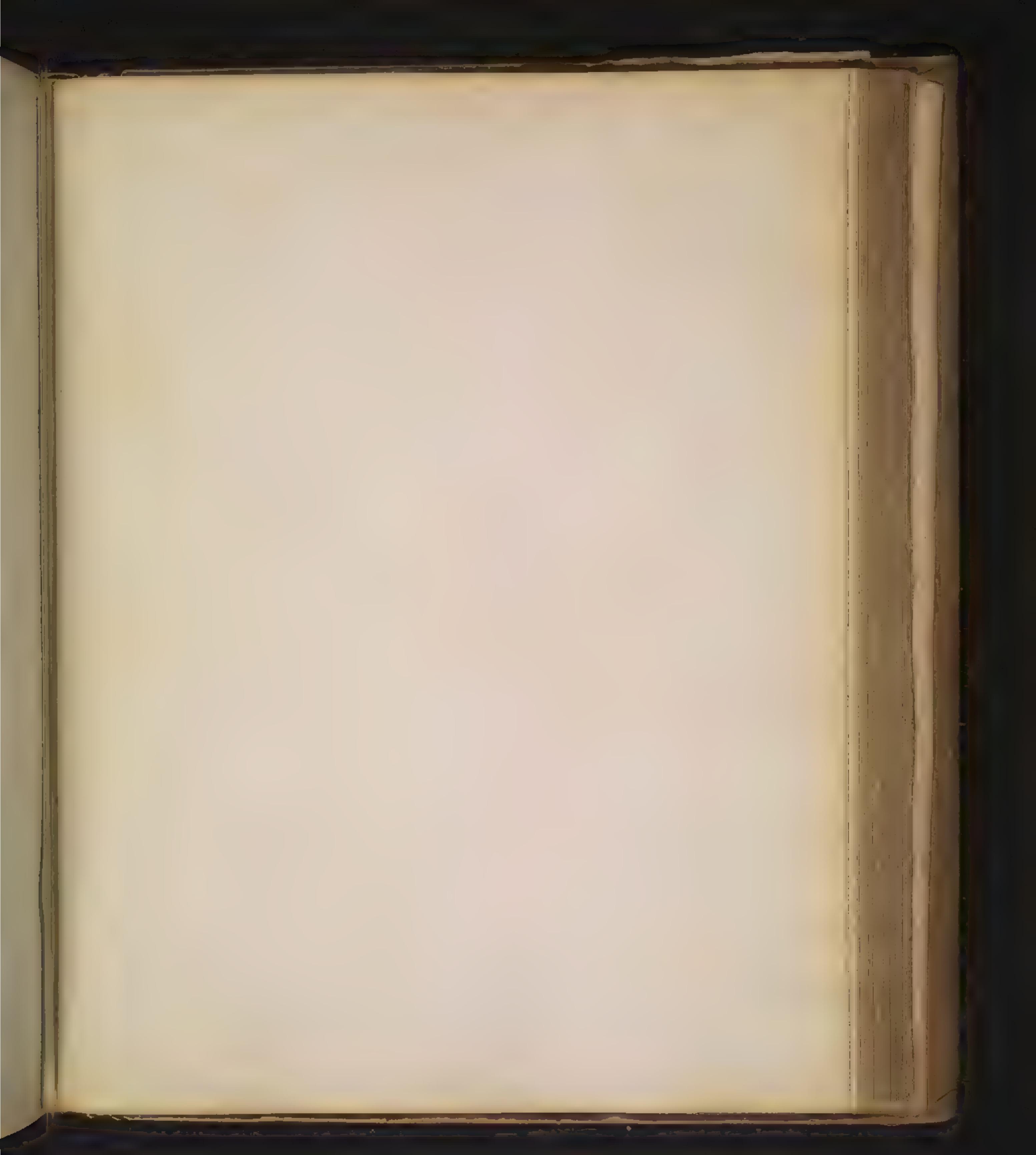








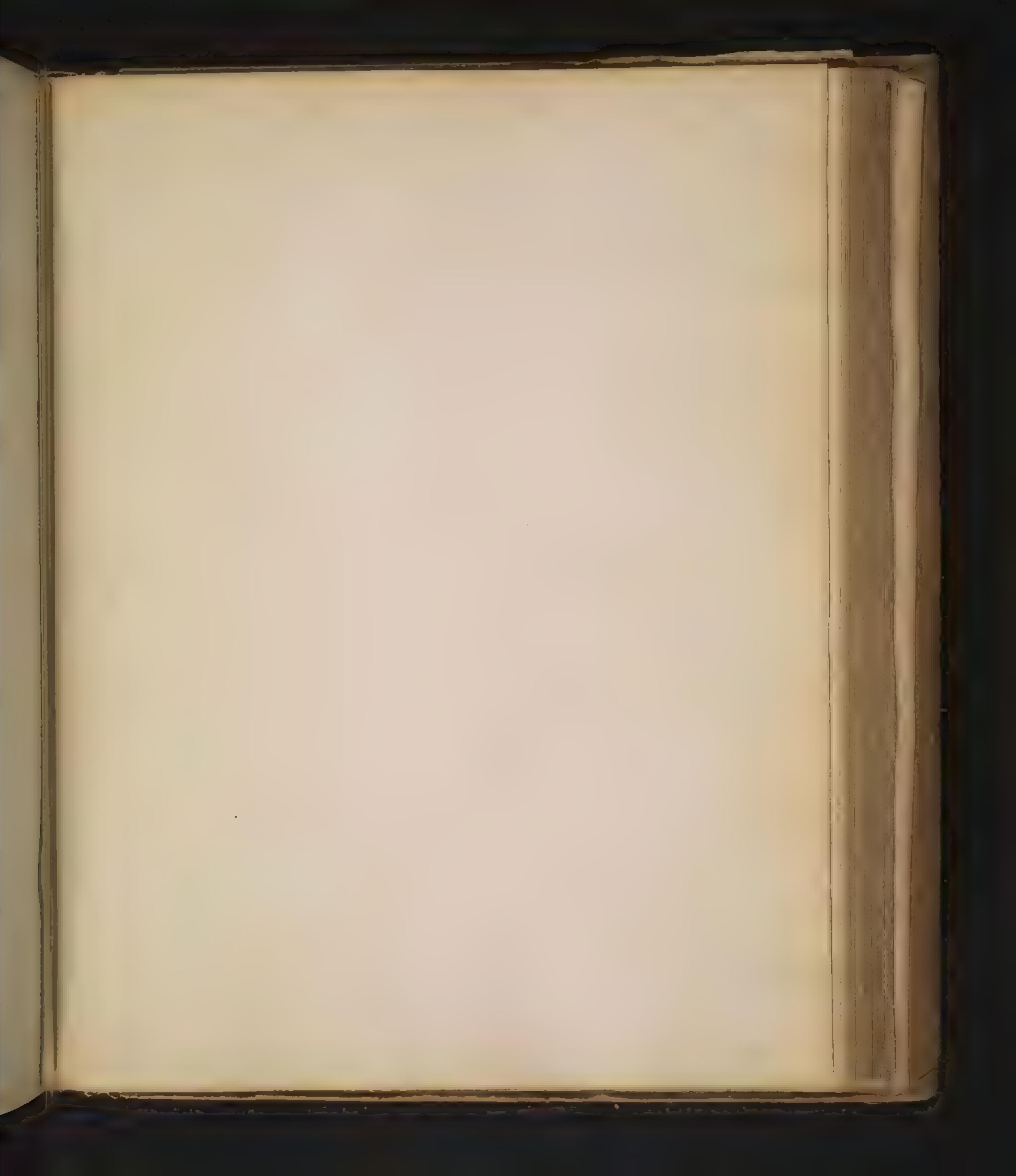






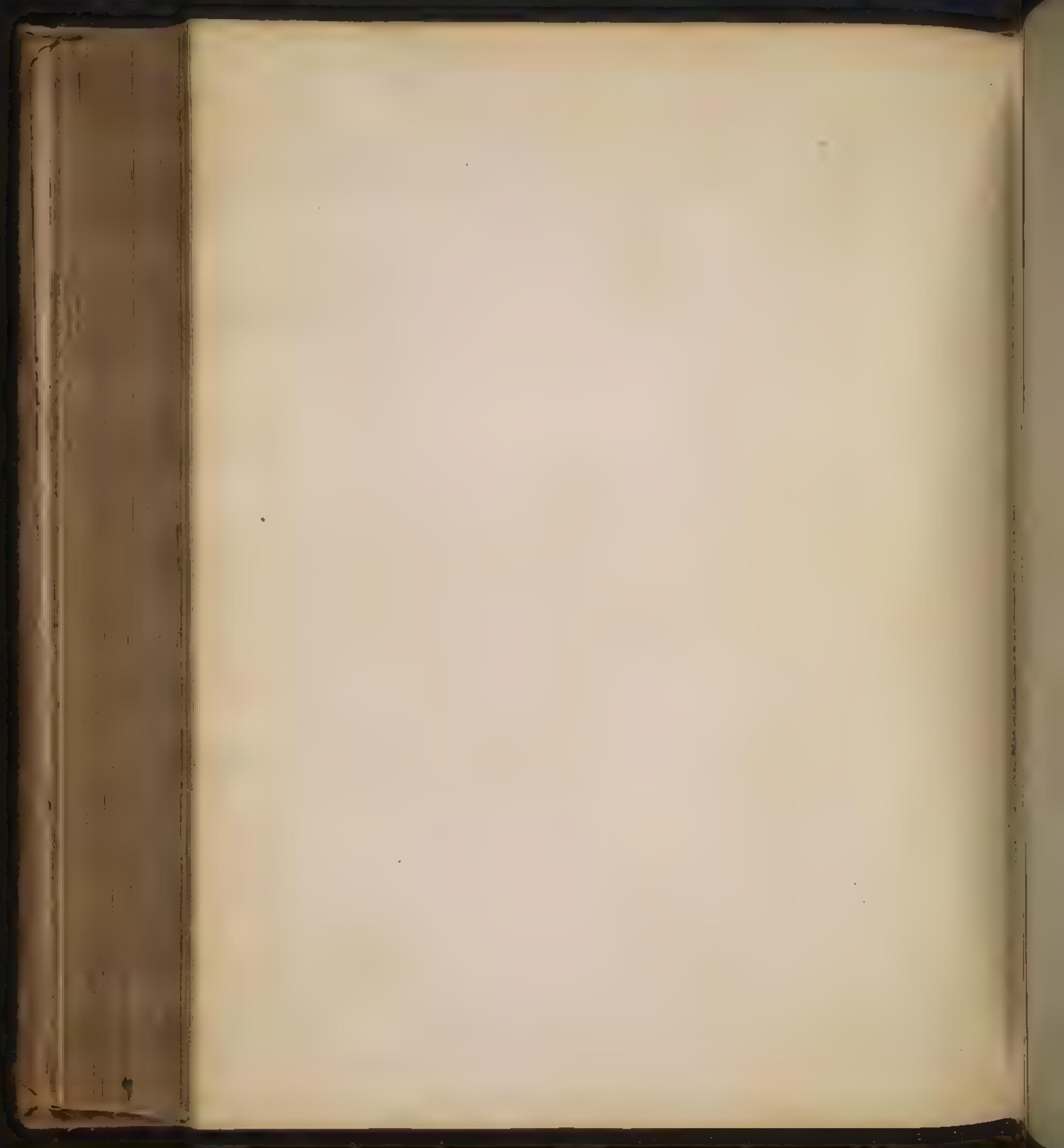






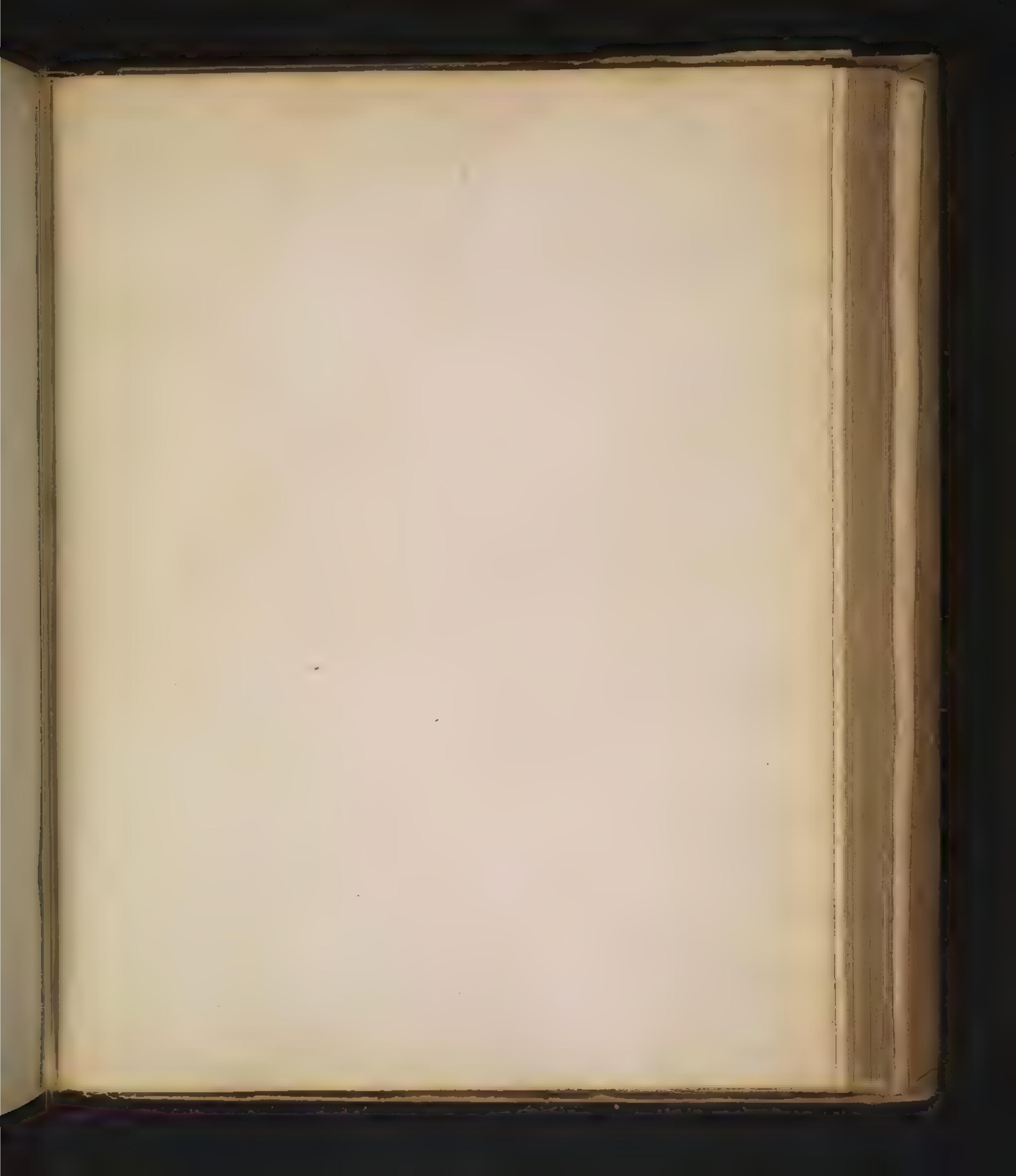
















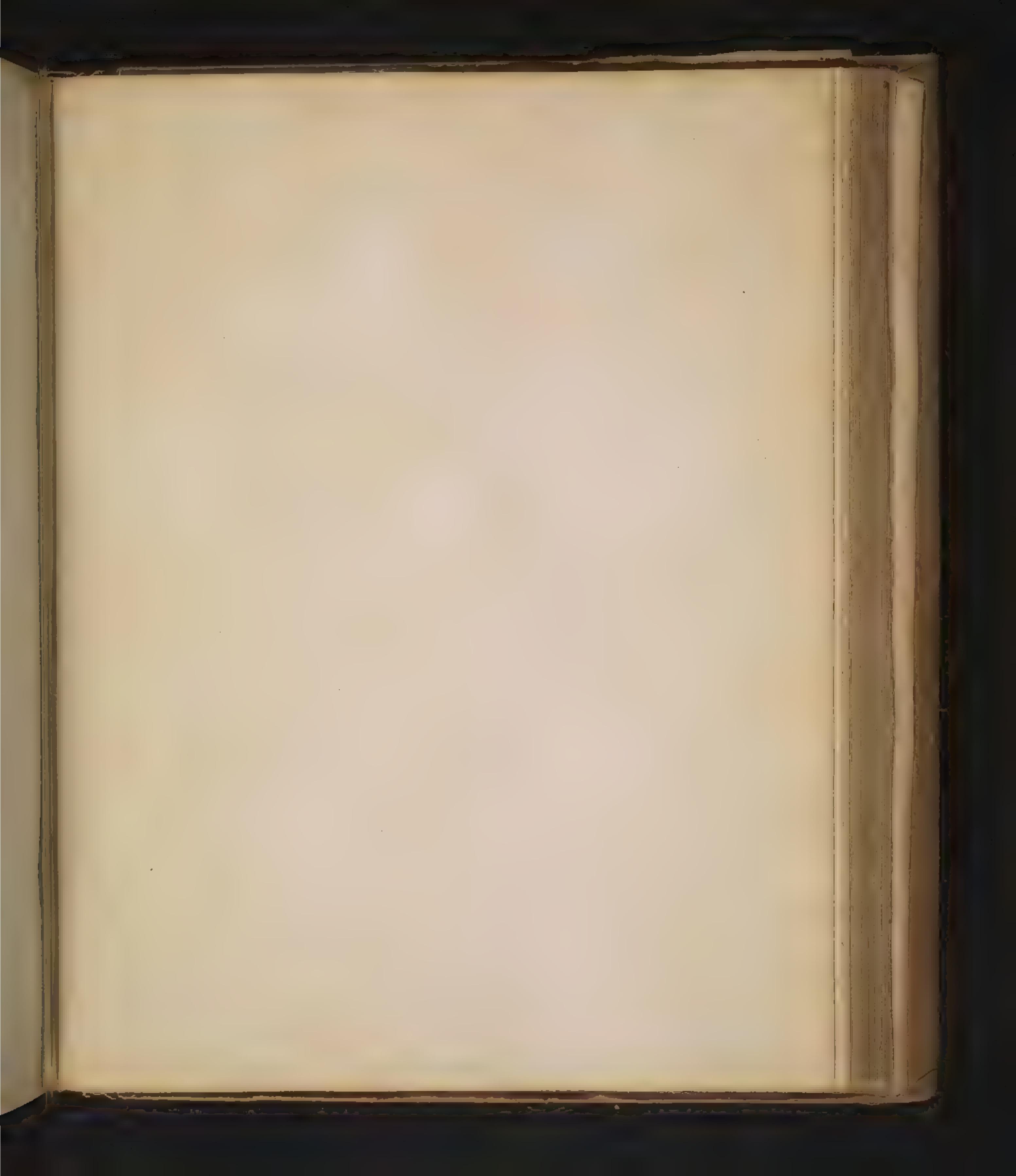
















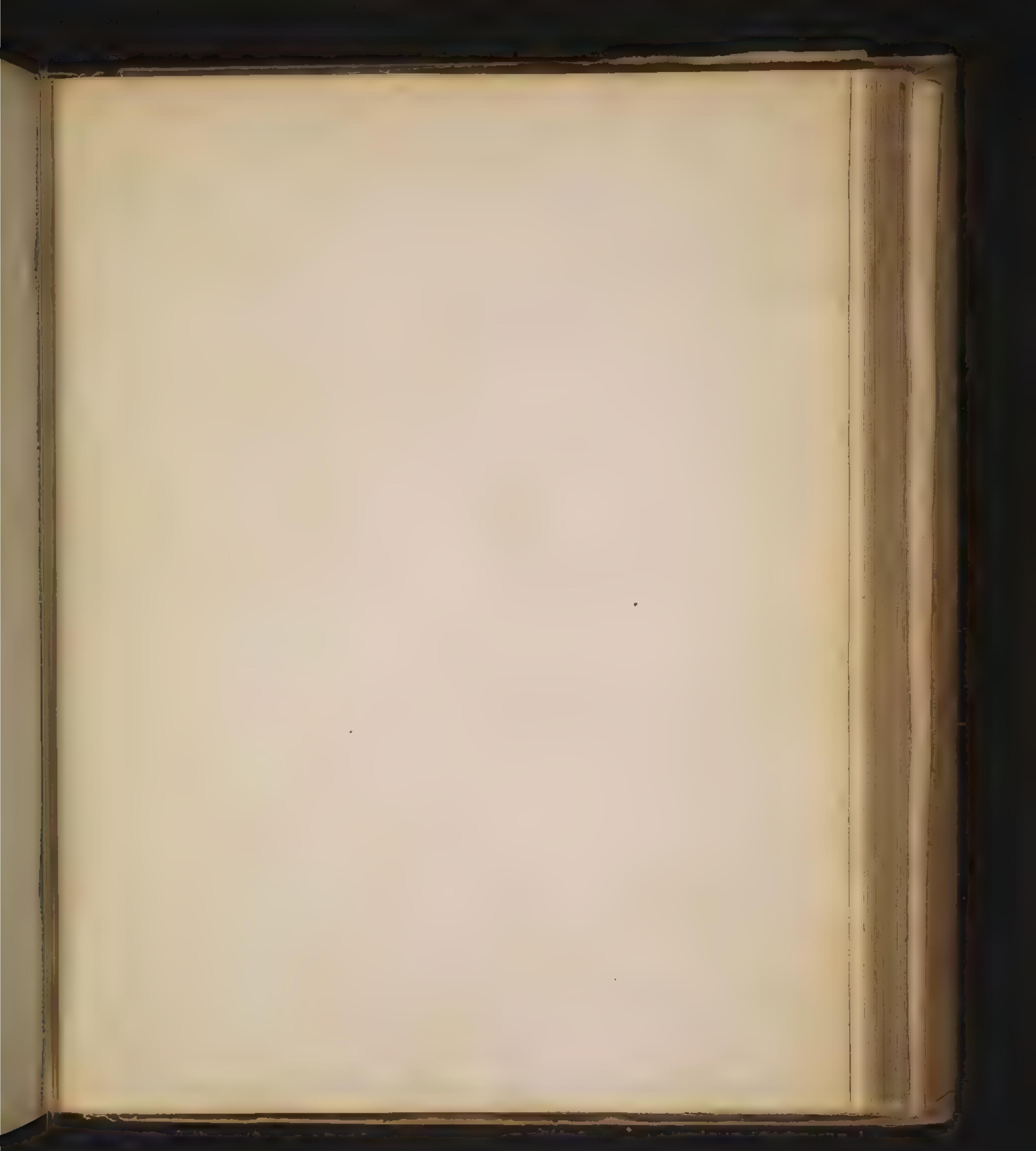




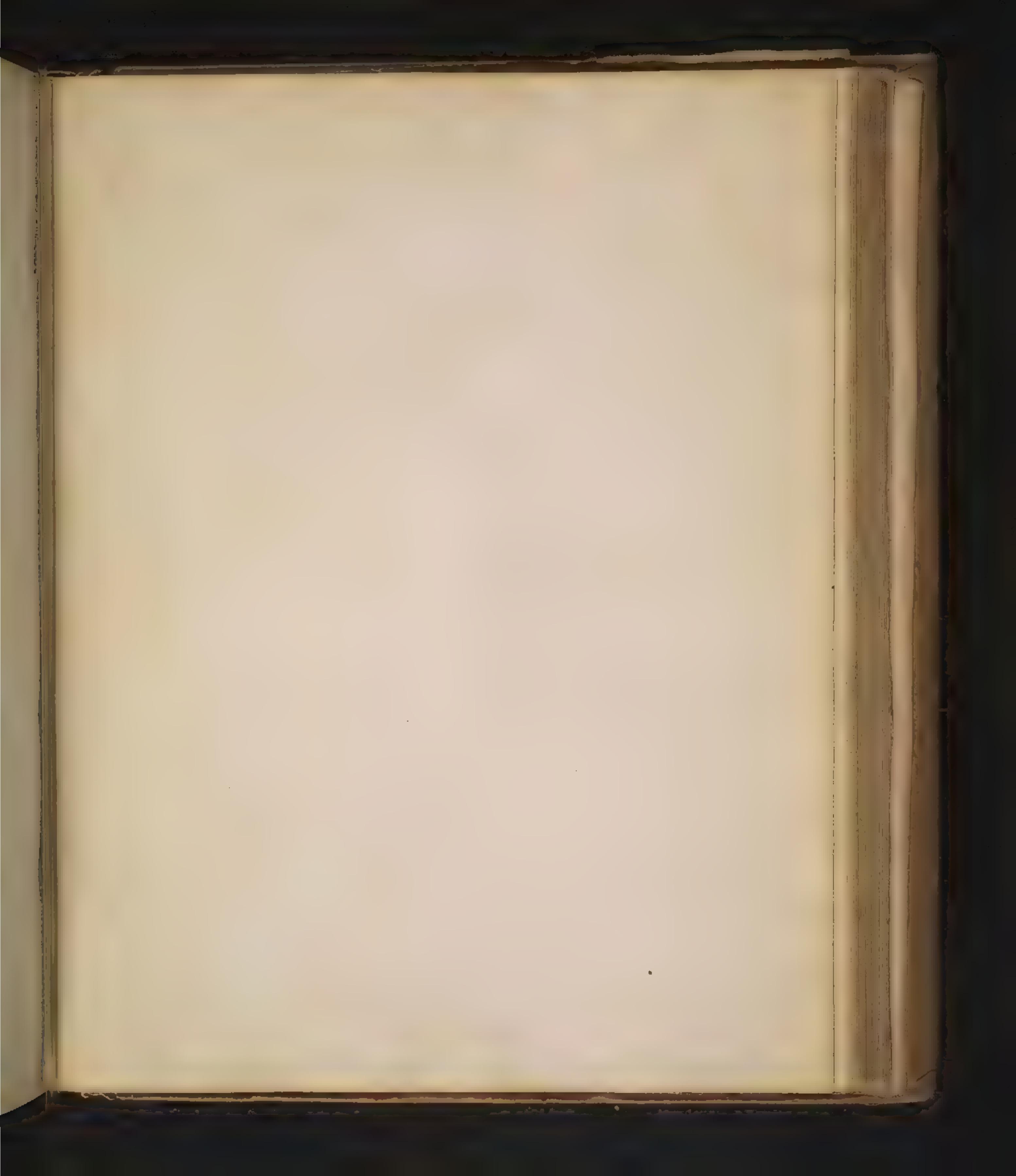


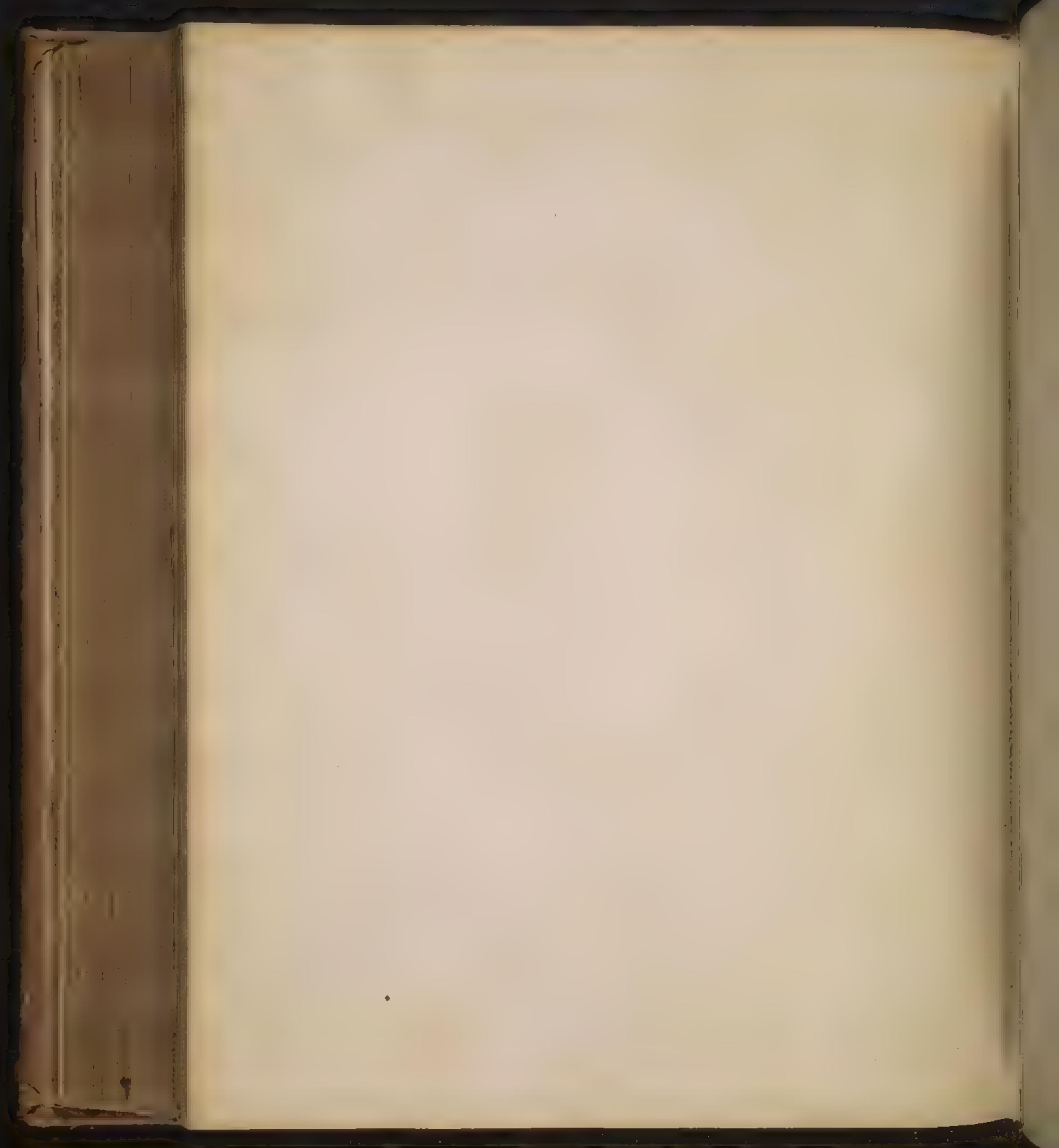




























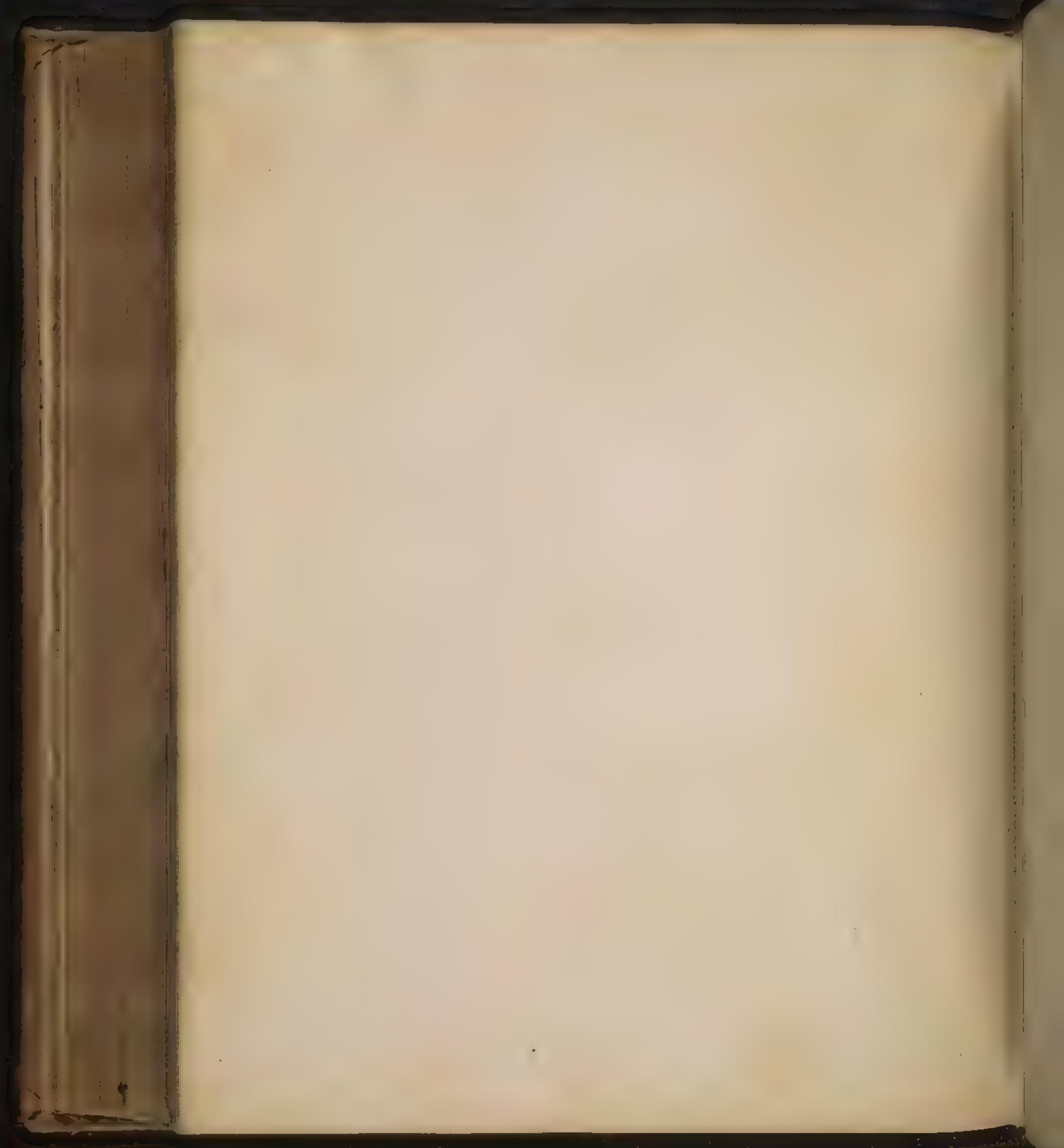
































## — INDEX —

Page Introduction to page 84-

- Arrangement of the Course and Method of Study 35.
- Pathological Remarks 56.
- Diseases distinguished by universal & local 68.
- Pyrexia — 70. — Intermittent Continual  
— thru effects on the System —
- Proximate causes 81.  
consist of three states which form time and  
action. symptoms belonging explained 12

Affections of the Stomach considerately.

- Bile considered 125.
- In what manner the Brain is affected 134
- Sleep 137.

Page Conclusion 141. ....

- Order of fevers
- fine Clapies 144.

Order Synocha 156.

Gyphus 169.

Page. Precipitation - 102.











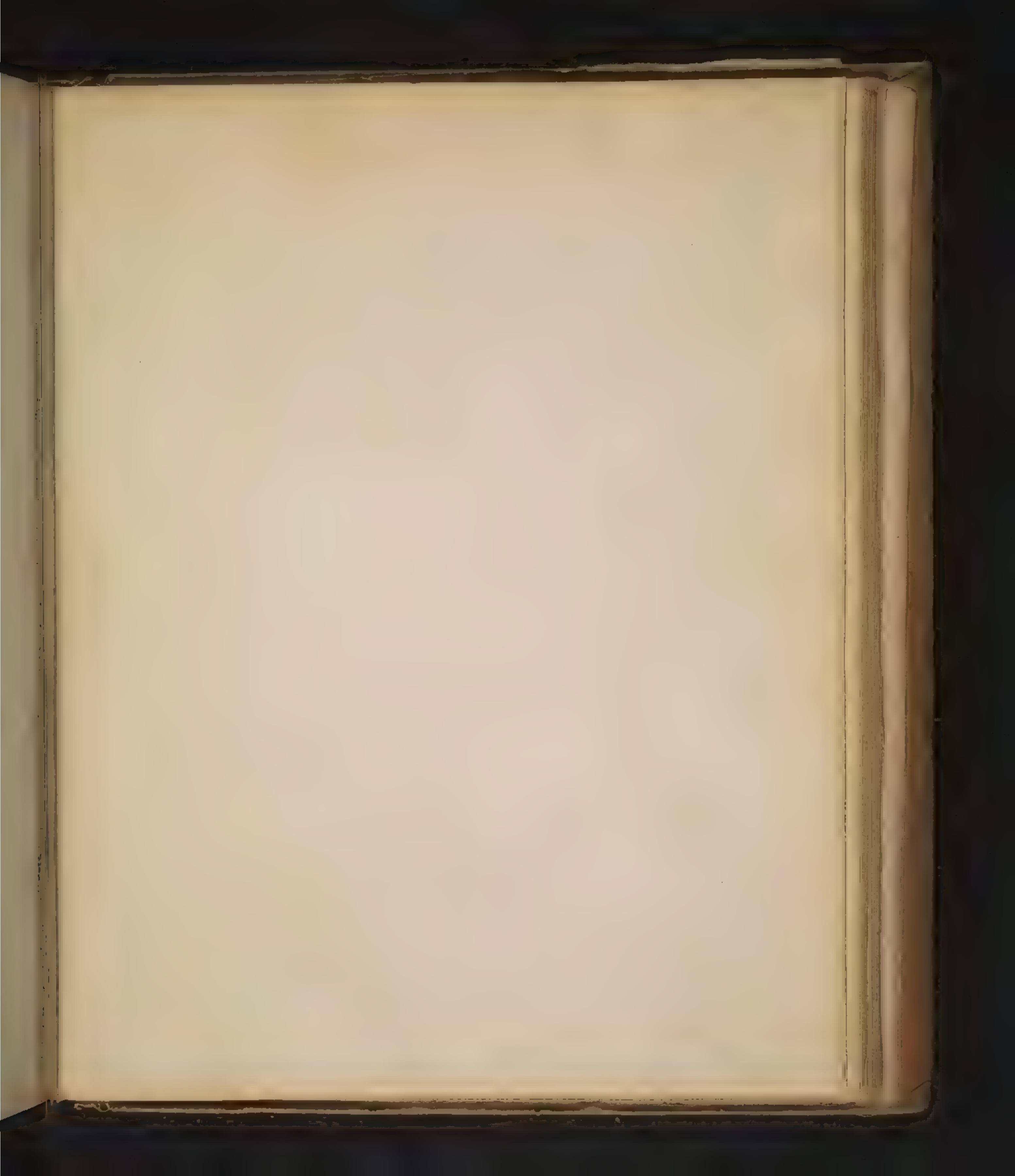




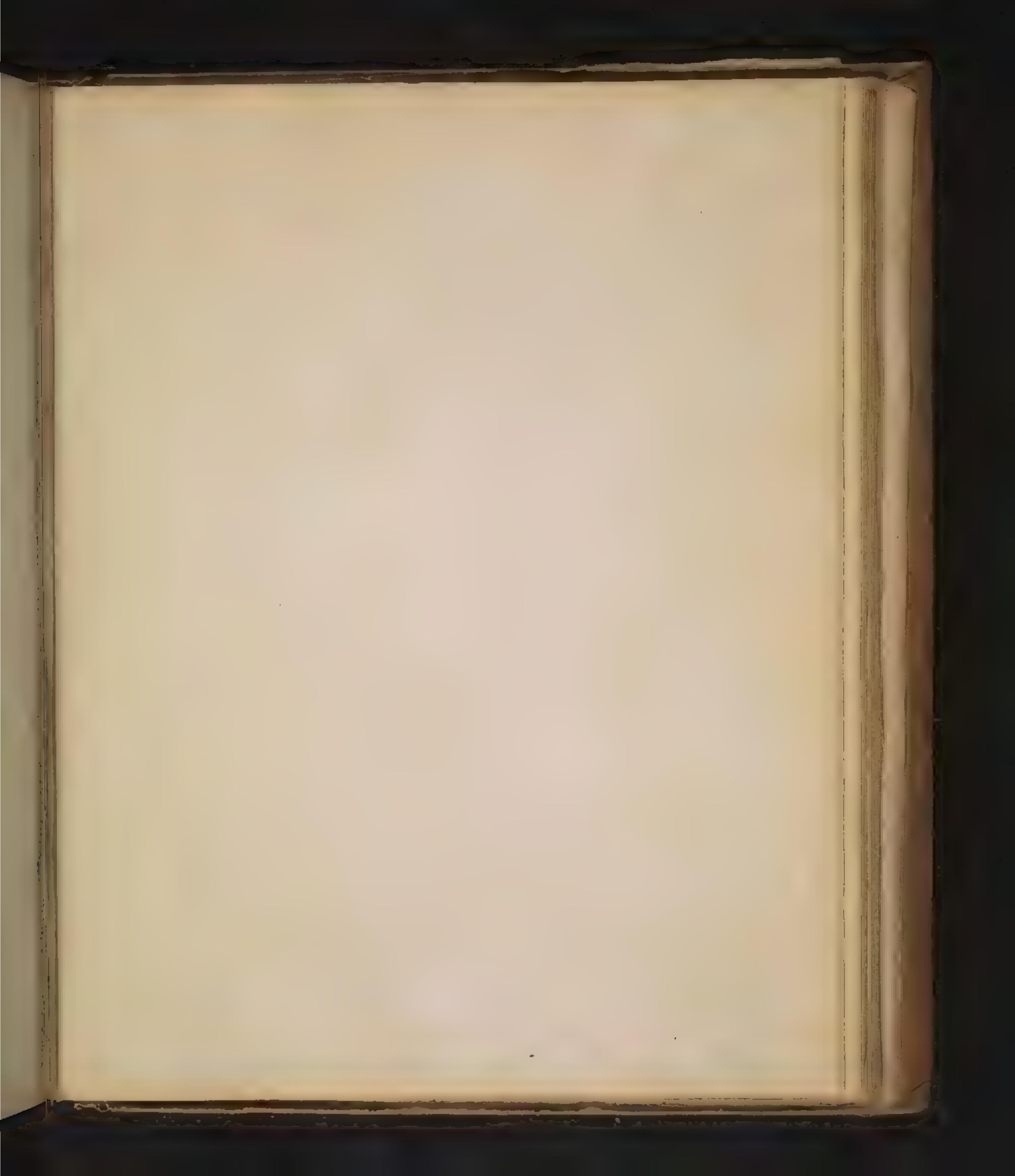






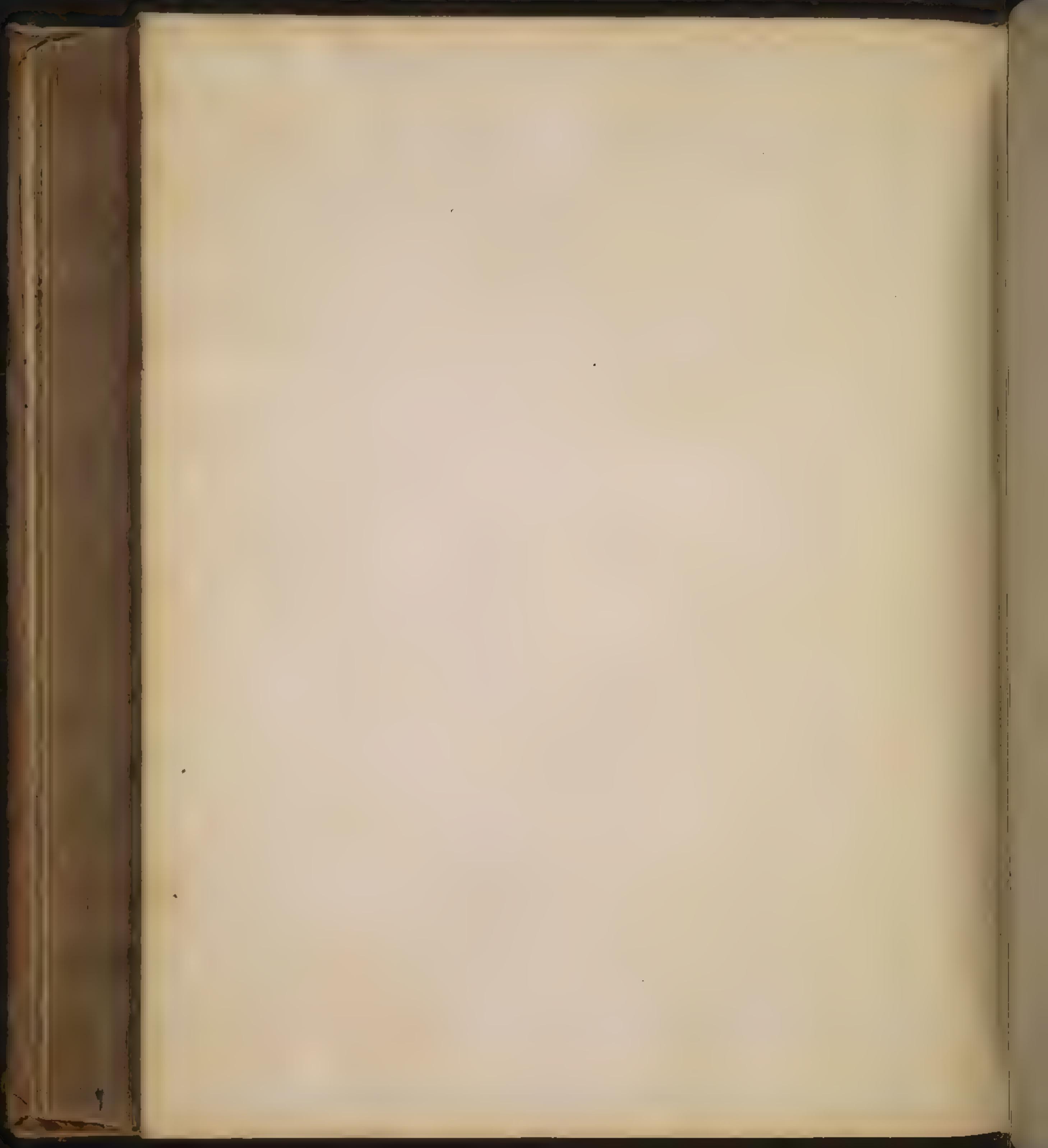


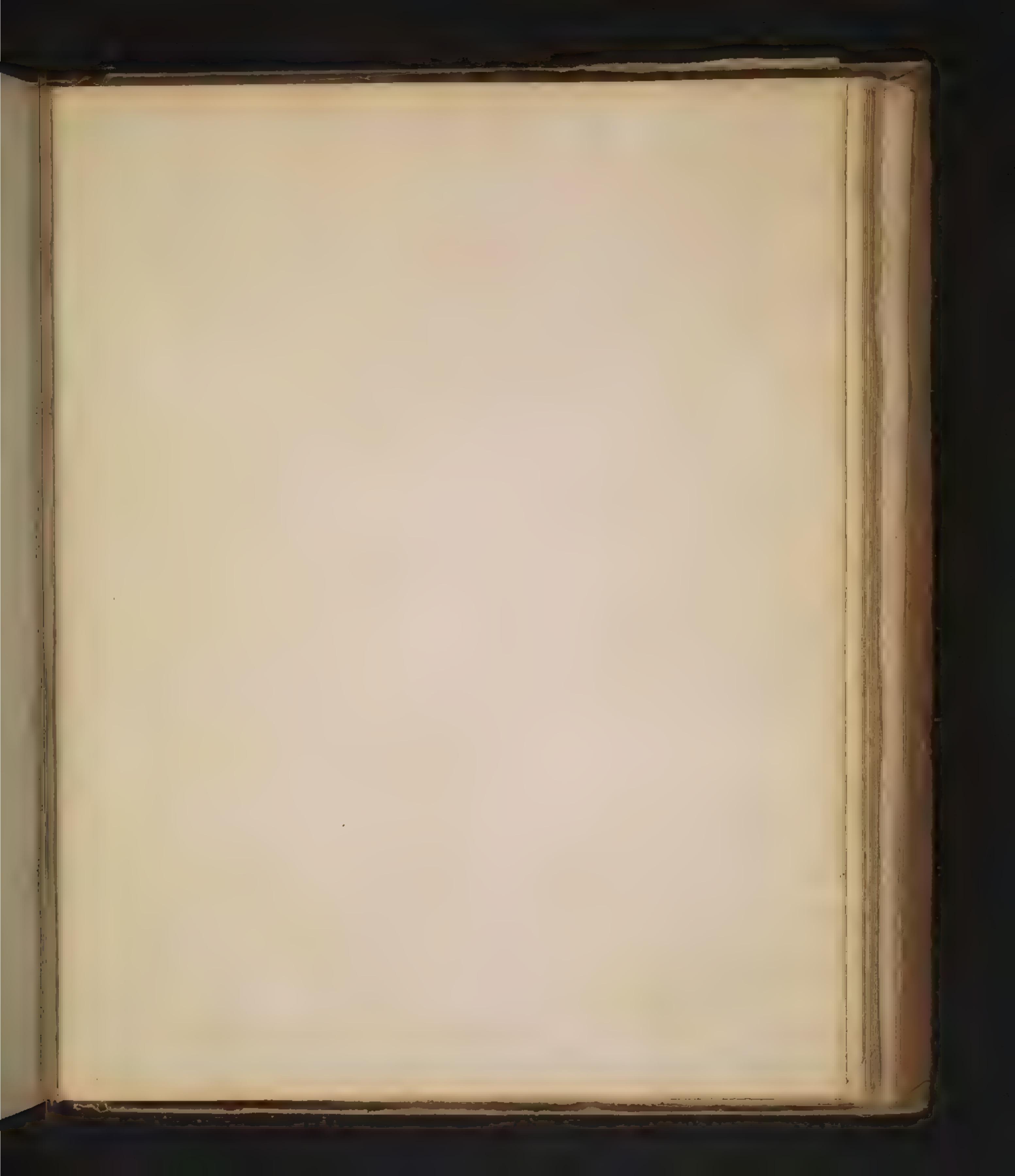


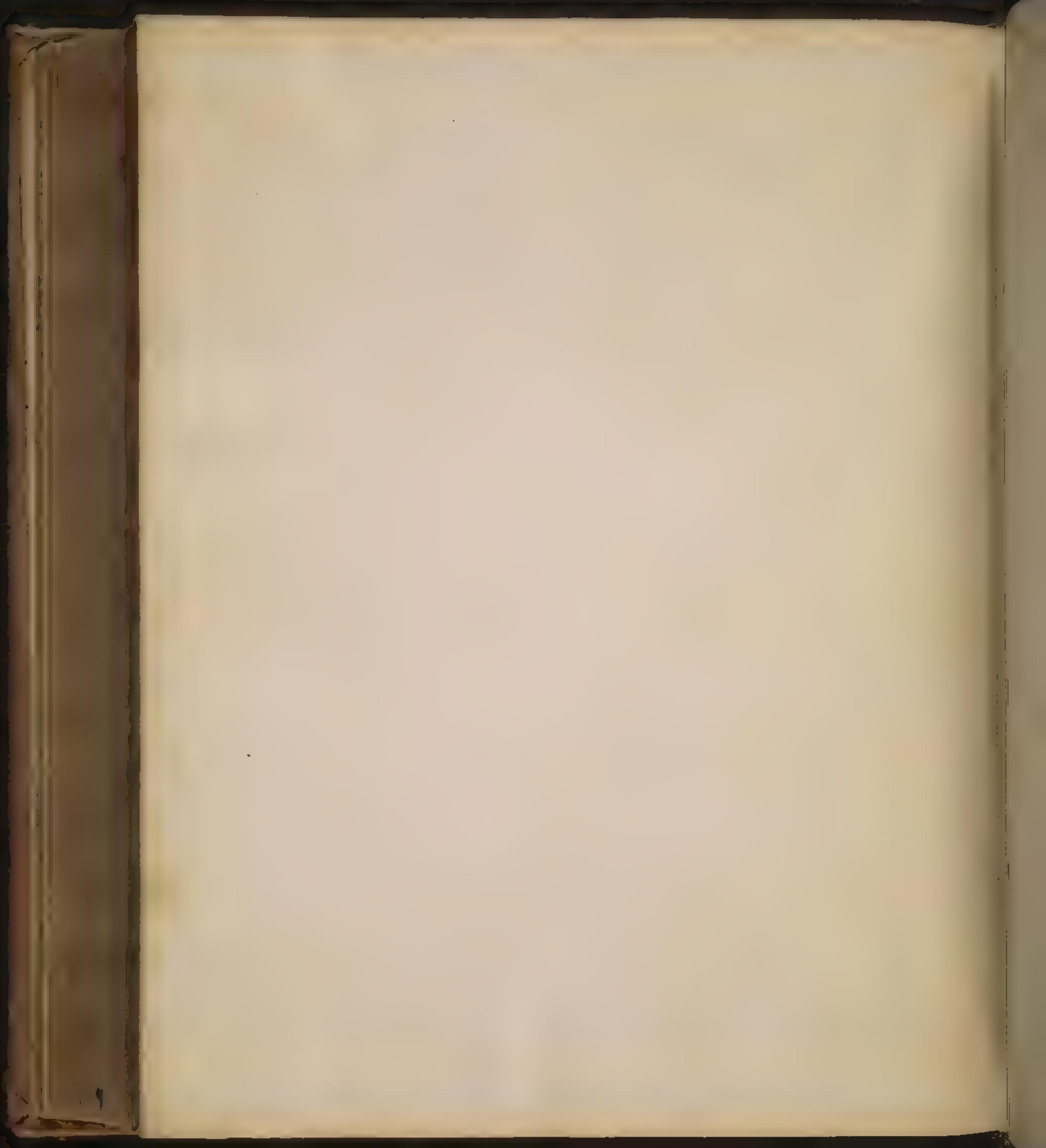




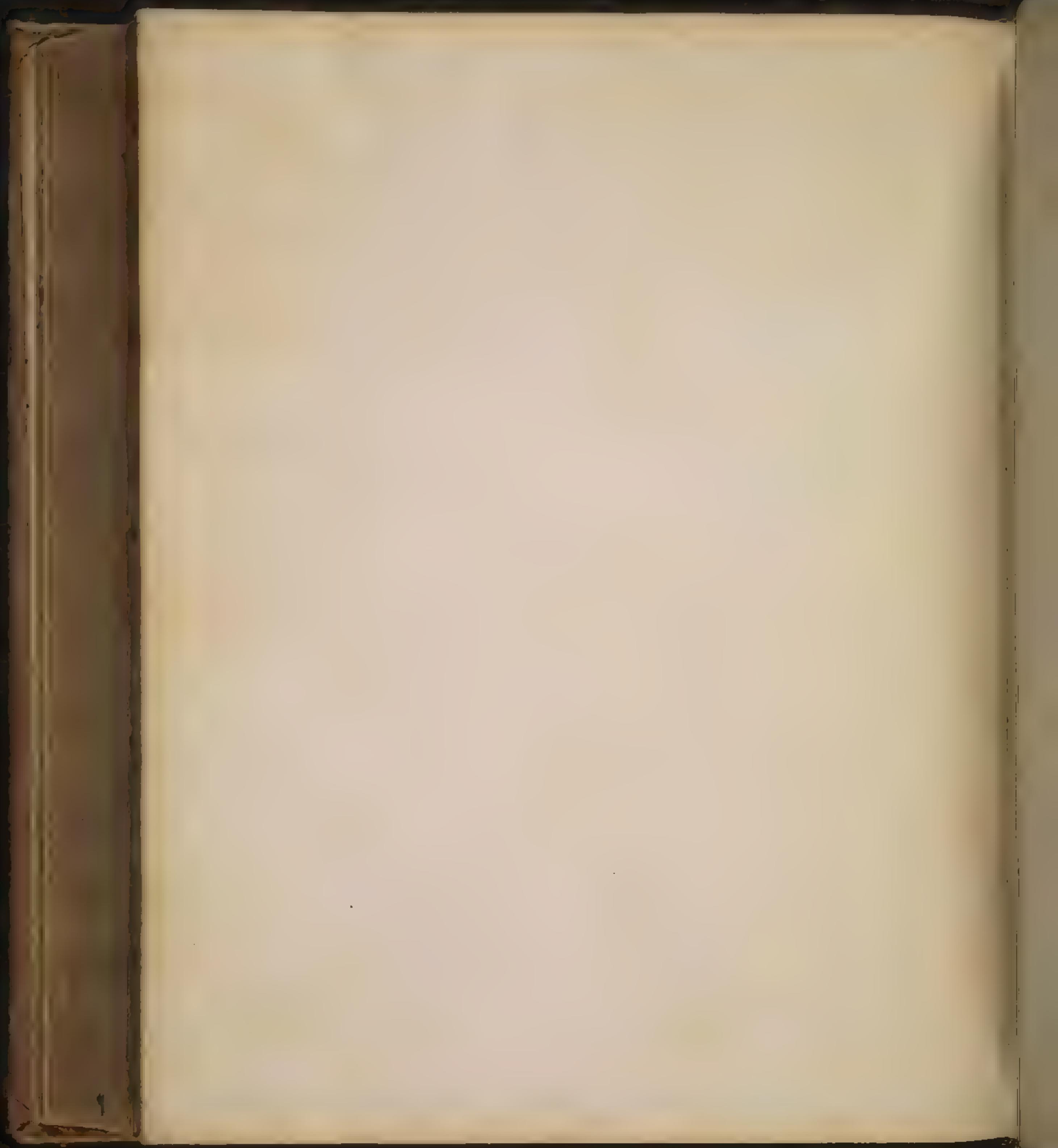




























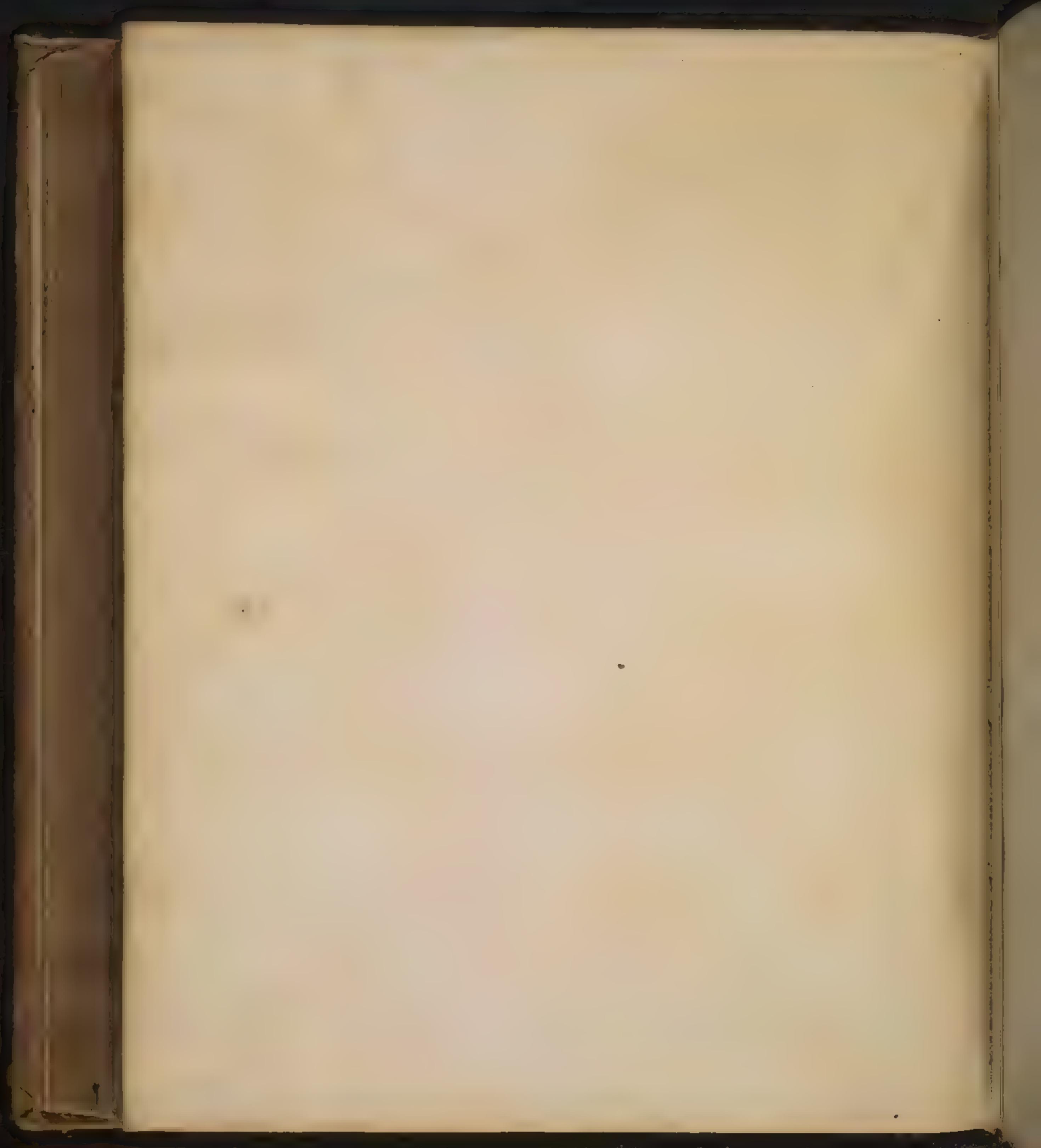




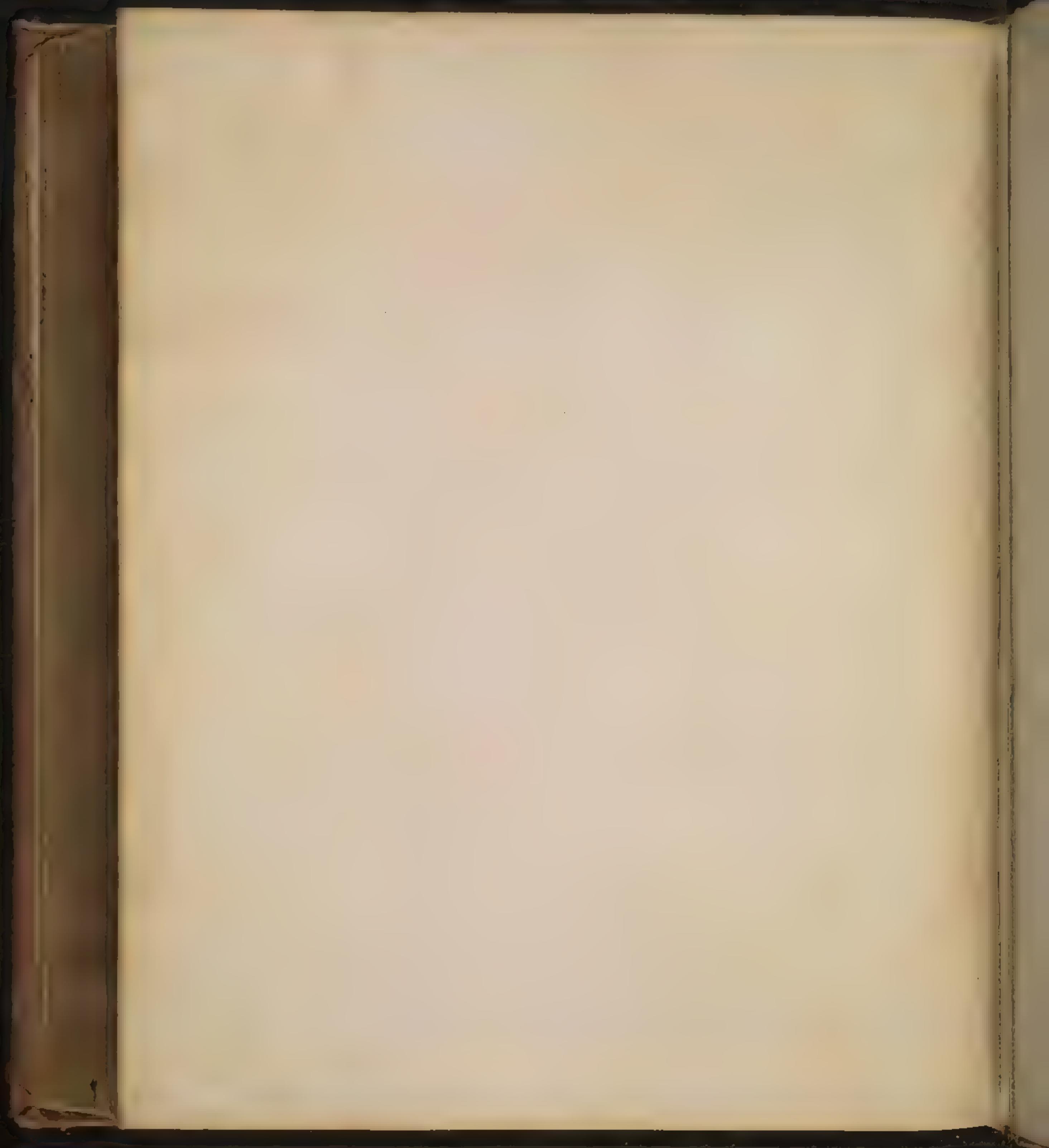












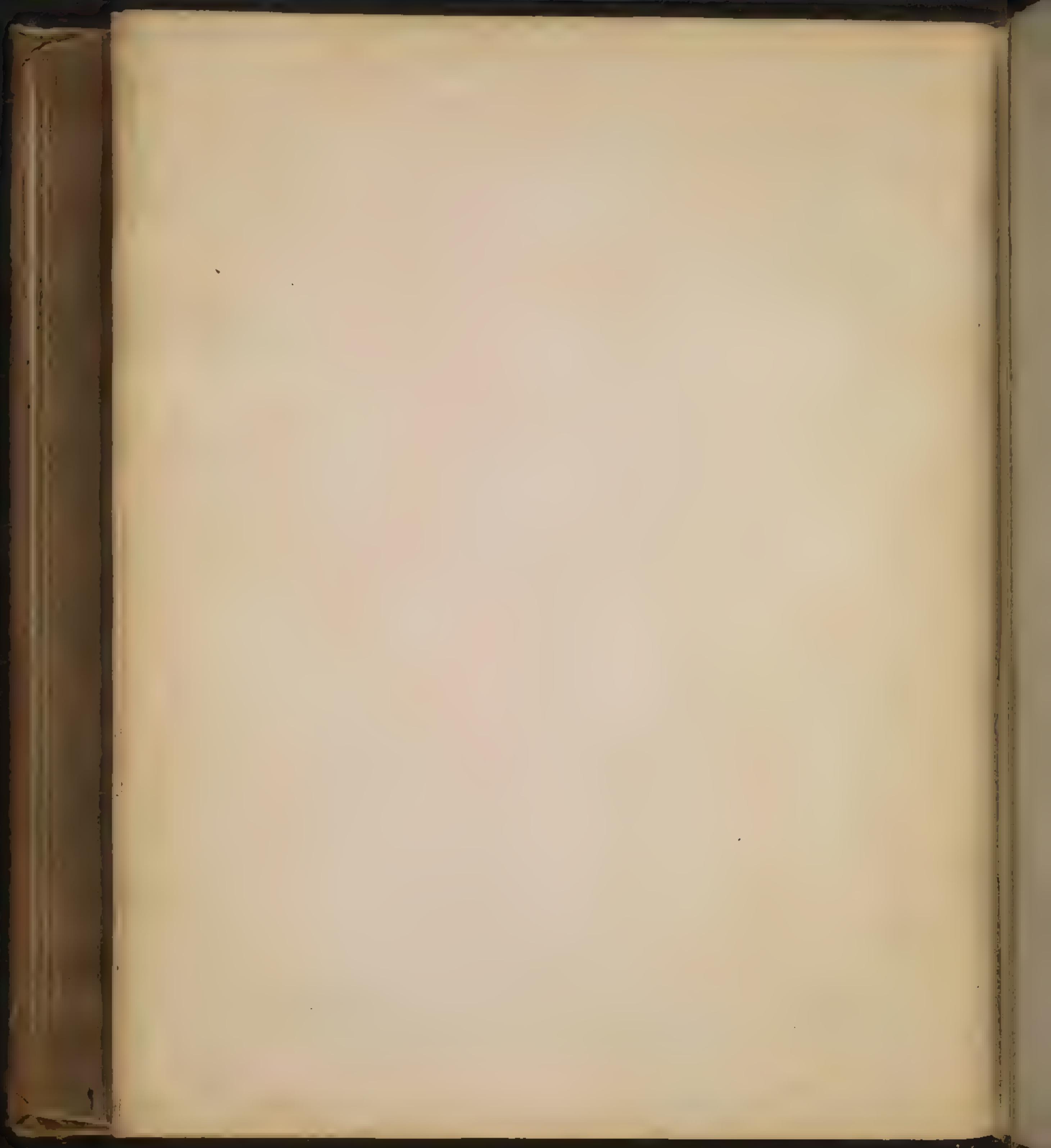
















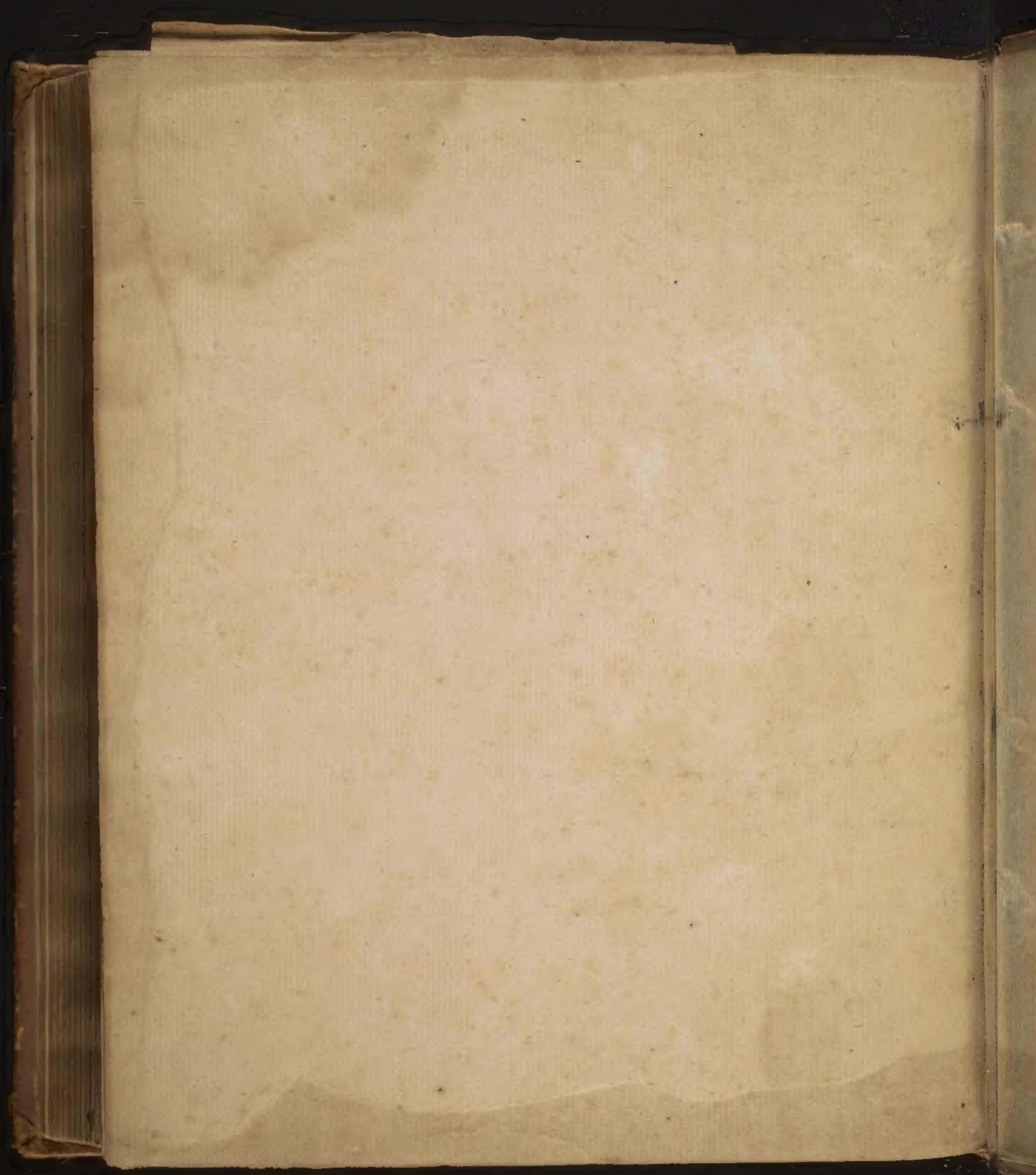












et  
1 pag' 1

